

1910

# Miracle CONCRETE

THE GREAT MODERN INDUSTRY



## Miracle Pressed Stone Co.,

MINNEAPOLIS, U.S.A.

[PRICE 25 CENTS



# OUR POLICY

**Q** IT has always been our policy to satisfy the demands of the public in the concrete line, and supply the needs of the market. We have spent many hundreds of dollars investigating the conditions through this and other countries, and many thousands of dollars to gather in the best of all classes of equipment for the production of concrete in its various forms. So, that at the present time, our complete line is complete in the truest sense of the word.

In addition to our world famous Double Air Space block equipment, we are now in a position to offer block machines of all descriptions, including various designs and styles of face-down and side-faced machines—machines for a very wet process, as well as for medium wet process blocks, also machines for continuous air space blocks. These have all been very carefully selected from the best on the market, and we feel that without a doubt we have actually secured the very best.

## BRICK MACHINES

In brick machines, we furnish equipment ranging from \$15 to \$100. Any of these machines are equipped for making cheap, common brick, or the highest grade of faced and ornamental brick.

We have found that the manufacture of concrete brick, when made in the highest quality possible, presents a very profitable field of operation. Aside from that, on account of the well-known form of a brick—regardless of its composition, cement brick have proven an entering wedge for concrete in many places where the purchaser was skeptical about using it until he had discovered the value of concrete in this familiar shape.

These machines are equipped for producing all designs of fancy molded brick, which sell in direct competition with the highest grade of hydraulic pressed clay brick.

## MIRACLE PIPE AND TILE MOLDS

Our equipment of molds for producing cement pipe for all purposes is complete in every respect.

Sewer pipe are produced either in the form of the bell-end pipe or bevel and tongue pipe. Double strength pipe for culvert purposes are produced in the same molds, either by reinforcing or by means of a thicker shell. Reinforced pipe are made with the "poured" process in our molds to convey water under heavy pressure, such as is required for carrying water through inverted syphons for irrigating purposes, or carrying water through flumes for water power, or in fact, for any purpose where resistance to enormous inside pressure is required. We furnish designs for reinforcement for any head.

These pipe range in size from 4 to 48-in. in diameter. One concern using our pipe molds now has under contract over 500 miles of sewerage, all of which are made of cement pipe. All of our pipe mold customers—some twenty-five hundred in number January 1st, 1908—are realizing handsome profits on this branch of the business.

## ORNAMENTAL MOLDS

In August, 1907, we purchased the entire stock, patterns and patents of the Cement Working Machinery Co., of Detroit. This purchase was made after a very careful survey of the field of ornamental molds, and this equipment was found to be the most perfect in architectural design and proportion, and the ready sale of the products of these molds in the hands of our customers, have proven this also to be a very inviting branch of the concrete industry, and one, subject to enormous growth and expansion.

When you stop to consider that you can produce for less than one dollar, actual cost, a concrete lawn vase which sells at anywhere from five to ten dollars, you can readily see the handsome profits to be realized in this field.

## COLLAPSIBLE CULVERT FORMS

The Miracle Collapsible Steel Culvert Forms are built in four standard diameters, 12 in., 24 in., 36 in. and 48 in., which as our experience shows, cover the requirements of modern road building. As the form is removed within a few hours after the length of the form has set, the standard length is 10 feet, which will take care of the average culvert with two settings; or two forms will complete the average culvert with one setting.

Township Supervisors and all the public road officials are practically unanimous in praise of our culvert forms, because the work is so satisfactory when finished. It can never rust out or rot out and it is practically self cleaning, as the shape of the material allows for no clogging or accumulation of waste matter.

## CONCRETE MIXERS

It is a well known fact that any kind of mechanically mixed concrete is far superior to any hand mixed product. While our first efforts in this direction were in the small cube mixer for hand power, which has been most eminently successful, we have recently added other mixers, both batch and continuous, large and small, ranging in price from \$35, up to \$1000. Our sales of the Miracle Cube Mixer, (being over 500 in 1907), opened our eyes to the enormous possibilities in this field.

## SIDEWALK MACHINERY, TOOLS AND EQUIPMENT

Our ten years of experience in the sidewalk business have taught us that many tools and machines for use by the sidewalk contractor, gotten up by visionary mechanics, are very impractical. We have selected only the best in this line and offer the same to our customers at bed rock prices.

The Miracle Sidewalk Tile Machine is equipped for producing a tile 2 inches in thickness and any size from 8 inches square up to 24 inches square—the same sizes in the hexagon style.

## LABOR SAVING DEVICES

Our equipment of labor saving devices such as pneumatic tamping equipment, air compressors, gasoline engines, etc., are also the result of many years of experience and experimenting and we are proud to say that every outfit of this kind that we have placed is in successful operation.

In fact, as stated above, we wish to reiterate that our constant aim will be to supply to legitimate and profit-producing requirements in the concrete working trade in general, and to assist our customers in every way possible to increase the quality and quantity of concrete products, and at the same time keep factory costs down to a minimum, thus helping them to realize a maximum of profit.



*Francis D. Krypka  
(07.19.80)*

# MIRACLE PRESSED STONE CO.

MINNEAPOLIS, U. S. A.

The Department Store of the Concrete Industry



MANUFACTURERS OF MACHINERY FOR MAKING

Miracle Ornamental Concrete Products,  
Miracle White Concrete Tombstones, Monuments and Burial Vaults,  
Miracle Double Staggered Air Space Cement Building Blocks,  
Miracle Cement Sewer Pipe and Tile,  
Miracle Cement Sidewalk Tile,  
Miracle Cement Brick.

Concrete Tools and Appliances of all Kinds  
Including Miracle Hand and Power Concrete Mixers.

FACTORY AND OFFICE:

NICOLLET ISLAND, MINNEAPOLIS, U. S. A.

CABLE ADDRESS, "MIRACLE, MINNEAPOLIS."





# The Pantheon at Rome

The Pantheon at Rome was built by Agrippa, 27 B. C.,

**2,000 YEARS AGO.**

Its state of preservation is most convincing evidence of the strength, durability and permanence of cement concrete construction.

The circular walls are about 20 feet in thickness, and the roof is a hemispherical concrete dome, with a 30-foot opening in the top, and spanning in the clear 142 feet and 3 inches.

**After Nineteen Centuries**

it stands as the most perfect of the old classical buildings in Rome, and shows not a single crack to-day.



WHO AND WHAT WE ARE  
IN THE GREAT

## Modern Industry—CONCRETE

**B**USINESS RELATIONS between ourselves and Miracle Concrete machinery users have always been peculiarly close and direct. That this is so the pages of this book will testify—fostering a spirit of co-operation that makes us one big family.

We prosper only as our patrons make good products and good profits. The great body of Miracle machinery users are often greatly helped by suggestions and facts, learned through experience, that we make it a point to disseminate widely by means of a magazine which we publish occasionally for this purpose.

We feel in the outset, therefore that a personal word, by way of introduction, may help to establish that mutual understanding and confidence so essential to the success of any commercial relationship.



O. U. Miracle  
President

### A WORLD-WIDE MIRACLE FAMILY.

We have started over 3,000 men into the business of manufacturing concrete products; and have sold our machinery to thousands more who had previous experience. These men are now at work in various lines of concrete manufacture in all parts of the civilized world; not a country of consequence in Europe, Asia or Africa is without its Miracle concrete workers. In Australia and New Zealand, in Mexico and South America, in Corea and Siberia these machines are giving such good satisfaction that they are constantly laying the foundation for more orders. In every state in the Union and in nearly every county, where the use of concrete has become a practical matter, Miracle outfits are making money for their owners. The United States Government and the British Admiralty are included in the Miracle family. Clever Japanese and sturdy Russians; swarthy Arabs and patient Holland Dutch are making Miracle concrete products; and one of the largest enterprises in the world using Miracle Molds is at the City of Mexico.

### A BUSINESS OF MANY SUCCESSES.

A larger proportion of men have succeeded in the concrete business than in any other industry that we know of. We can claim only partial credit for this fact, however, because we feel that the manufacture of concrete products attracts the bright, active and pushing men of communities offering a field for this enterprise. Usually these begin in a small way (as we generally prefer they should), learning the foundation principles of the business while it is developing under their own hands. Then, as opportunities for larger things come, these men are

able to meet them and turn them to profit to themselves and advantage to the public.

It may interest some to learn that we laid the foundation of the Miracle concrete machinery business in actual every day experience as workers in concrete. Every machine and tool that we offer for sale has been tried out; and our experiment department is constantly making investigations to benefit the Miracle family of concrete workers. We know every machine we sell will do all that is claimed for it—and more—in the hands of the man who will but follow the simple instructions.

But we do not depend entirely upon our own efforts to keep us in the lead in this industry. We are always in the market for the best that can be produced. We are now the largest manufacturers of concrete machinery in the world. We are ambitious to remain at the head and hope to deserve the patronage of the concrete users of America and the world.

### WE INVITE YOU TO SHARE THE OPPORTUNITIES.

We commend the concrete business unreservedly. We know that the men who go into it have almost unlimited fields open to them at once—and a broadening future. We do not say to you “go” into it, but “come”. We have been active contractors in concrete work from the beginning of our connection with the industry and are still engaged in some of the largest concrete contracts in the continent of the classes which we have specialized; and it is but a frank statement of the truth when we say that we find the making of concrete products the most profitable department of our various enterprises.

While it is quite uncommon to invite competition in business, we feel that this field is so big that we will continue to get all the work that we can give proper attention to. So, too, can the reader. Here is a business that you can “learn to do by doing;” you can succeed from the start in a small way without experience. And you can succeed in a large way limited only by your knowledge of business and your other capabilities.

This means some satisfaction and probably some money to us; but, when it is remembered that at this time no less than 6,000 concrete workers are looking to us for the newest and best, we have a responsibility, also. We must keep faith with them.

We can have no higher ambition than to have the honor of serving these thousands of the brightest, most progressive business men in the world—the concrete working brotherhood—the Miracle workers.



R. O. Miracle  
Secretary and Treasurer



# Cottages and Bungalows



CHAS. F. CRAIG - NEWPORT, WASHINGTON



C.A. SNYDER - AUBURN, NEB.



G.P. THOMAS - LITTLETON - COL.



NETTIE E. PAGE - DENVER - COL.



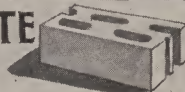
U.S. Court Building at Big Stone Gap, Va.

*A recent conflagration was stopped by this building.*



"Ridge Top"  
T.F. Waller - Ft. Worth, Texas

**MIRACLE CONCRETE BUILDINGS**



LUTHERAN CHURCH  
WATERVILLE - WIS.  
CONCRETE BLOCKS  
COST \$1800 -

*School built by the  
Onondaga Pressed Stone Co.  
Syracuse - N.Y.*





# MIRACLE IN FOREIGN LANDS

Miracle Products are triumphant in their own country. It is therefore natural that their make, especially the fame of the MIRACLE DOUBLE STAGGERED AIR SPACE BLOCK and MIRACLE MACHINERY for making it, should spread to other lands. The MIRACLE is known the world around, and the "sun never sets" on the good work it is doing.

It is characteristic of foreign buyers to thoroughly investigate before purchasing—not afterward. The Miracle Double Staggered Air Space Block convinces even the shrewdest foreign buyers, and is demonstrating its popularity with foreign builders, as is evidenced by continued and duplicate orders for Miracle machinery.

Foreign correspondence is solicited in any foreign tongue.

## TELEGRAPH AND CABLE CODE:

CABLE ADDRESS: "MIRACLE, MINNEAPOLIS."

Interpretation.	Code.
Ship at once.....	Ship
Contracts properly signed and complied with follow today .....	Contracts
Ship against Bill Lading and Draft.....	Lading
Money sent forward today.....	Payment
Money Deposited .....	Deposited
Hold for instructions.....	Hold
Send salesman at once.....	Salesman
Hand documents to Bank of New York with sight draft .....	Documents
Ship Exhibit A complete at once.....	Exhibit
Ship Exhibit B complete at once.....	Exhibiting
Ship Exhibit C complete at once.....	Saved
Ship Exhibit D complete at once.....	Safe
Ship Exhibit E complete at once.....	Salvage
Ship Exhibit F complete at once .....	Shipping
Ship Exhibit G complete at once.....	Shipped
Ship Exhibit A&B complete at once.....	Shipper
Ship Exhibit AB&F complete at once.....	Shipment
Ship Exhibit ABF&G complete at once.....	Shipweight
Ship Broken Ashlar Plate H-140.....	Ash
Ship Broken Ashlar Outfit complete .....	Ashlar
Ship Chicago Chimney Outfit complete.....	Chicago
Ship Veneer and Partition Plates complete.....	Veneer
Ship Egg Dart and Cornice Outfit complete.....	Cornice
Ship Half Height Outfit complete.....	Half
Ship Wreath Belt Course Outfit complete.....	Wreath
Ship Gopher Machine .....	Gopher
Ship Climax Machine .....	Climax
Ship Northwest Machine .....	Northwest
Ship Minnesota Machine .....	Minnesota
Ship Wonder Face Down Machine.....	Wonder
Ship Winner Twin Block Machine.....	Twins
Ship International Block Machine.....	International
Ship Miracle Block Lifter .....	Lifter
Ship Bell End Sewer Pipe Outfit complete (state size) ..	Sewer
Ship Straight Drain Tile Outfit complete (state size) ..	Straight
Ship Straight Tile Outfit with bevel end rings (state size) Drain	
Ship Bevel End Rings for Tile Outfit (state size) .....	Bevel
Ship Bell End Attachment for Tile Outfit.....	Bell

Ship Miracle One Man Brick Machine.....	Brick
Ship Miracle Special Brick Machine.....	Special
Ship Miracle Sidewalk Machine.....	Walk
Ship Square Mold for Sidewalk Machine.....	Mold
Ship Hexagon Mold for Sidewalk Machine.....	Hexagon
Ship Miracle Hand Power Mixer.....	Mixer
Ship Miracle Winner Mixer .....	Winner
Ship Miracle Concrete Block Car.....	Car
Ship Air Tamper .....	Tamper
Ship Air Tank .....	Tank
Ship Air Compressor .....	Compressor
Ship Air Tamper, Tank and Compressor complete.....	Air

Sizes for Sidewalk Molds and Sewer Pipe Molds may be specified as follows:

Six inch.....	Six
Eight inch.....	Eight
Ten inch.....	Ten
Twelve inch.....	Twelve
Fourteen inch .....	Fourteen
Eighteen inch .....	Eighteen
Twenty inch .....	Twenty
Twenty-four inch .....	Forty
Thirty inch.....	Thirty
Thirty-six inch .....	Sixty

## SAMPLE ORDER BY CABLE.

Genoa, Italy

Miracle, Minneapolis.

"Shipweight, Ash, Brick, Mixer, Air, Documents."

JONES.

This covers an order to ship at once Exhibits A, B, F and G, Broken Ashlar Plate H-140, Miracle One Man Brick Machine, Miracle Hand Power Mixer and Air Tamper Tank and Compressor complete, with instructions to hand documents to the Bank of New York with sight draft.

**Miracle Pressed Stone Co.**

Minneapolis, U. S. A.



# THE GREAT MODERN INDUSTRY

## READ THIS PAGE CAREFULLY. AN OPPORTUNITY FOR PROFITABLE INVESTMENT.



There has never been a year when capital was seeking so strenuously a profitable outlet, nor has there been a year when opportunities for profitable investments have been so plentiful as is the present one. The reason is directly due to the condition of the times. There is abundant chance for success in any reasonable project. Surmounting all other fields for investment is that of concrete construction. There is none so inviting to the con-

servative investor from all points of view as in any one, or all, of the four big industries we are promoting.

We have been remarkably fortunate with each branch. In every one we have found an exceptional and strong advantage over anything ever attempted along the same lines. In one branch we have incorporated the only successful principle to attain the desired end. In another we have contrived mechanism which has reduced the purchaser's investment by hundreds of dollars, and yet he is able to accomplish the better results. In a third we have reduced the labor by one-third, and so on. Concrete construction in itself has a bright outlook, and the field is barely opened. Yet beyond these two indisputable facts we offer this third and all important inducement, viz., the exceptional and unquestionable advantages of our machines and methods. These advantages we will point out and prove in the following pages. By them we can help you to business success, and together we will help the industry to greater achievements, which will naturally revert to our mutual interests.

### LITTLE CAPITAL.

In any, or in fact all, of the branches of Miracle Concrete Construction but very little capital is required. The making of Miracle Double Staggered Air Space Blocks; or of Miracle Sewer Pipe and Tile; or of Miracle Sidewalk Tile; or the making of Miracle Cement Brick, requires only a small outlay of money—the amount of a few months' savings will start one nicely and pave the way for a good business. This much can be done in any branch without devoting your entire time at first. It always pays for beginners to go easy, and "learn the ropes," so to speak, but it is not the beginners alone we are trying to interest.

We want those who are already interested to branch out and enlarge. If you are making cement blocks, spend a little money and make more by entering cement brick manufacture. If you are making brick, go to making sewer pipe or building blocks, also. Every branch of the concrete industry pays well, and calls for but little capital. Enlarge, enlarge. The field is big. It is your opportunity to grow.

There is no other business today that we know of where cost of equipment is so small, and profits so large. The investment in concrete construction business will vary according to the amount of business transacted. The larger your field and the larger you make it, the larger must be your equipment, but there is consolation in that, for the profits more than keep pace with the amount of money and energy you put into the business.

Compare the investment required in cement manufacture with that required in the manufacture of pressed brick, tile, etc., from clay. The expensive machinery is in the first place almost prohibitive. Add to this the kilns for burning and the continual expense for repairs, fuel bills, etc. Yet these manufacturers prosper. In making a cement product you have only a

simple mold to buy, and water is all that is needed to cure the product, and no expensive fuel to buy. The little capital required is sufficient alone to warrant a trial, but there are other advantages.

### ANY ONE CAN LEARN.

With a competent superintendent any man, with good horse sense, who will do what he is told to do, can readily master this business. From this argument it can be seen that anybody with a little push and business ability can enter this most attractive field.

There is absolutely no chance for loss under able management, and your profits will only be limited by the amount of push, energy and tact that you put into the business.

### BIG PROFITS.

This is the interesting item of our proposition. Big profits are only possible when the cost of production is much less than the actual market value. The actual market value of Miracle Concrete Products is controlled to a great extent by the market value of brick, stone and other building materials. However, concrete is far better than brick or stone, and can therefore command larger prices. Concrete construction is better because it is more beautiful and longer-lived than brick or stone; it is Absolutely Indestructible. It is also Absolutely Fireproof and Vermin-proof. Where Miracle Staggered Air Space Blocks are used buildings are also Frost and Moisture-proof. This last feature is sometimes claimed for single air space blocks, but the claim is erroneous, as we will clearly prove in the following pages.

Although Concrete Construction embodies all the good features of the very best quality of brick and stone of the highest cost, and although it adds to this many other merits and advantages, it possesses all the virtues of cheapness, in that the cost of production is considerably less. This we will clearly show in the following pages.

The result is increased volume and bigger profits. We all know that the lumber business is very profitable. But here is what one large lumber dealer experienced. As a side line he conducted a plant for making Miracle Concrete Blocks. His investment in this never exceeded \$2,500 at any one time during the year. His average investment in the lumber business was \$25,000 (ten times as great). In balancing up his books at the end of the year his Miracle Block Business showed the greater NET profit.

Every branch of Miracle Construction is capable of showing just such experiences. They each have such a decided advantage in one particular or another over their respective competing industry.

### A WIDE FIELD.

One machine or one mold is sufficient to start one nicely in any branch of this big industry. Other equipment can be added out of the profits earned from any branch, and the business will soon take on large proportions, increasing from its own surplus.

The market for the product is an extensive one. There is always a ready demand for all the product you can make, and the industry has just had its opening. The breadth of the field for the use of Miracle Concrete Blocks alone comprises a long list. It includes building construction from a plain foundation, a humble cottage or barn, to the finest residence, store or elaborate public building.

The fields for all the other branches are equally as broad. Isn't our proposition worth considering?



# THE MIRACLE BLOCK

## ITS PRINCIPLES.

### DOUBLE STAGGERED AIR SPACES. STRONG WALLS.

The superior merits of the Miracle Block stand out plainly, forcibly, unmistakably. Its double air space principle is directly accountable for most of its many merits. Air space in itself has value. It is an old established fact that a hollow iron tube or column is much stronger than a solid one of equal weight. A hollow wall is likewise stronger than a solid one of equal material. The wall with two air spaces instead of one is accordingly much stronger than the wall with only one, furnishing also three perpendicular walls instead of two. A wall of Miracle Double Air Space Blocks is therefore the strongest possible.

It is stronger by far than two walls forming one continuous air space. Nearly the entire weight of a building falls on the inside wall, and if that wall is only connected to the outer wall by small rods or wooden strips, the outer wall does nothing toward supporting the building. This shows up a strong feature of the Miracle Double Staggered Air Space Block. It forms one good wall for the entire weight of the building; the corners especially where most strength is needed being doubly strong.

A wall from single air space blocks cannot rightly be called a hollow wall, because it has a series of cross sections of solid concrete, directly connecting the inner and outer surfaces every few inches. A complete hollow wall is one in which all solid sections are backed by air spaces—in other words, having absolutely no direct connection between the interior and exterior walls. Such a wall can only be built with Miracle Double Staggered Air Space Blocks. It forms a truly hollow wall. The air spaces register exactly so as to create two series of the perpendicular, continuous air chambers throughout, and each series so backs up a section of concrete that there is absolutely no direct connections between the interior and exterior sides. See illustration below.

### FROST AND MOISTURE PROOF.

It is frost and moisture that makes a building cold in winter and hot in summer. Keep them out, and you will have no trouble to keep your building warm in winter and cool in summer. (Frost is only negative heat, and acts the same as far as penetrating the wall is concerned.) Most frost and moisture which enters a building is conducted through the walls. Every building material yet placed upon the market is more or less a good conductor of frost and moisture. Air is the poorest conductor, hence the effort of all contractors and builders to build walls with dead air spaces. But how many of these walls do not have, every few inches, or at the most every eighteen inches, a section of solid wall, forming a direct connection from exterior to interior? Not one, except the Miracle. Single Air Space Blocks help some, but a wall with a single air space would not stand if there was not direct, solid section connecting the inner and outer surfaces, thus creating a direct conductor of frost and moisture. A glance at the Miracle Double Staggered Air Space Blocks will show one very clearly that there is no such direct connection, yet we have shown the Miracle wall is doubly strong. Wherever frost or moisture pierces, it must strike air space, and it cannot go on. Were it to retrace its steps, so to speak, and go around each air space, it becomes thoroughly filtered before travelling the necessary eighteen inches or more. Concrete itself is a poorer conductor of heat and frost than any other building material. Actual usage verifies our arguments on this point. See letters to that effect.

### REGARDING OUR PATENT.

No block possesses sufficient merit to be fully protected by U. S. patents, except the MIRACLE. No infringers have ever attempted to use our principles. They cannot be assailed, which

fact is of especial value to all who undertake to manufacture the block.

We print here the principal claims of Miracle & Dow, Patent No. 730,780, application for which was filed Dec. 1st, 1902, final issue June 9th, 1903, now owned by the Miracle Pressed Stone Company.

We claim:

1. A building-wall consisting of concrete blocks having a plurality of rows of vertical air-cavities, the cavities of one row being opposite and longer than the intervals between those of the other rows, whereby they lap by the ends of the consecutive cavities of the other row, such blocks being assembled in the wall with their cavities registering one above the other in vertical succession to form continuous, vertical cavities in the wall.

2. A building-wall consisting of concrete blocks having two rows of vertical air-cavities, the cavities of one row being located opposite and longer than the intervals or necks between the consecutive cavities of the other row, whereby they lap by said consecutive cavities, one of the rows having at each end of the block a half-cavity constituting a notch or recess in said end, the blocks being assembled in longitudinal order, with such half-cavities registered and forming together a complete cavity crossing the junction plane.

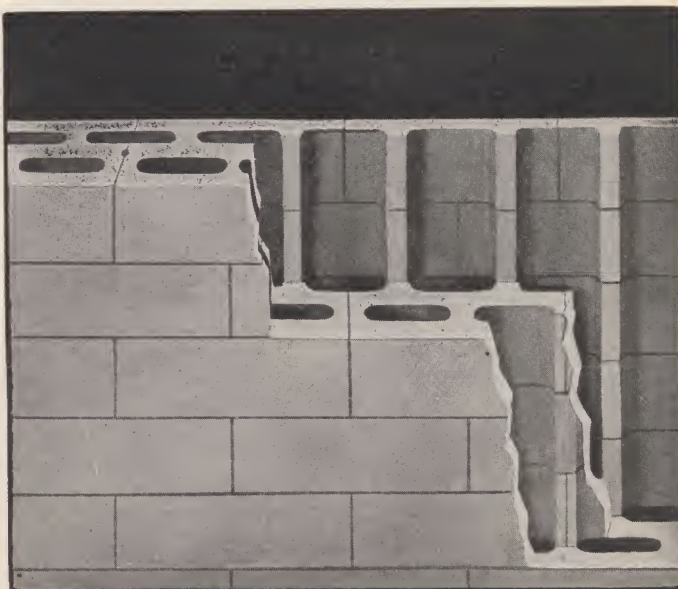
3. A building-wall consisting of concrete blocks having two rows of air-cavities, the cavities of one row being located opposite and being longer than the intervals or necks between the consecutive cavities of the other row, whereby they lap by the ends of such consecutive cavities respectively, one row of cavities comprising a half-length cavity constituting a notch or recess at each end of the block, the blocks being assembled in the wall with the row having such half-length cavities at the inner side of the wall, and with such half-length cavities matched or registered to form full-length cavities.

4. In a building-wall, concrete blocks having two rows of cavities, the cavities of one row being opposite the intervals between those of the other row.

5. In a building-wall, a concrete building-block having rows of air-cavities separated by intervening necks or webs of the concrete, abutting ends of the blocks having half-length cavities which register to form complete cavities when the blocks are assembled in the wall.

6. In a building-wall, a concrete block having two longitudinal rows of air-cavities, such air-cavities extending vertically through the blocks, the cavities of each row being located opposite the intervals between those of the adjacent row, one of the rows having at both ends a half-length cavity.

7. A concrete building-block having a plurality of longitudinal rows of vertical air cavities, the cavities of one row being opposite the intervals or necks between those of the other row, and being longer than such intervals or necks, whereby they lap by the ends of said consecutive cavities respectively.



Showing the Perpendicular Columns of Staggered Air Chambers in a Miracle Wall.

### BUILDER SAVES MONEY.

The first vital question that flashes across the mind of the builder, is the cost. "How much can I save by using concrete blocks?" The answer is, 20 per cent., and he will get a much better and more beautiful structure. By figures and the actual statements of concrete manufacturers, we arrive at the following



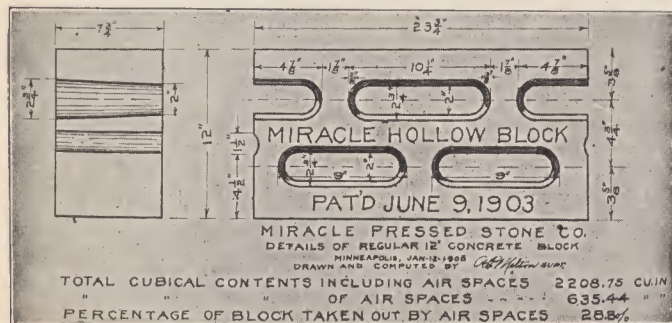
## ITS PRINCIPLES—Continued.

data which shows how this 20 per cent. is saved and that it is a conservative statement.

For equally as good a building concrete stone will displace at a saving field and quarry stone at \$2.50 per perch from 25 to 40 per cent.; kiln run brick at \$13.00 per thousand, 25 per cent.; stock and pressed brick at \$26.00 per thousand, 50 per cent.; cut Bedford stone, \$1.50 per cubic foot, 400 per cent. The percentages will vary according to the local prices and conditions, but the facts will remain approximately the same.

In addition to this saving, the builder also saves the cost of lathing and furring, which is from 20c to 30c a yard, which labor and expense cannot be safely eliminated with any form of concrete blocks except the Miracle. The plaster is applied directly to the Miracle wall. This single point has possibly more than any other made the "Miracle" the most popular block with architects, contractors, builders and owners. The very principle of the Double Staggered Air Space is accountable for safety in plastering directly on the block. Frost, heat, moisture, and other conditions which cause a wall to crack, and plaster both to crack and peel off, cannot penetrate the Miracle Blocks, as they can all other forms of building material, including single air space walls. The strongest testimonials from indisputable sources of authority testify to the great superiority of the "Miracle" from this practical point of view.

### DETAIL OF THE BLOCK.



The standard MIRACLE block has 28-30 per cent. air space, and is approved and admitted by every City Building Ordinance and Inspector in the United States and Canada.

### OTHER VALUABLE FEATURES.

An important feature of the Miracle Block which particularly interests the manufacturer and the contractors, is the fact that it can be easily handled by one man. The result is that it costs less to lay than brick or stone.

It is also to be taken into consideration that cement can be shipped to almost any point of the country, and as sand, gravel and crushed stone are usually found in the vicinity of the plant, and are usually subject to no freight, or else a small one, and as from three-quarters to seven-eighths of the materials composing the blocks are found at hand, it is a matter of easy calculation to see that where a shipment of a number of materials used in building would be prohibitive on account of their weight, the cement block being made practically on the ground, is not subject to transportation charges.

It is to be remembered also that Miracle Block construction offers a wide—yes, unlimited field for architectural designing. We have molds for all requirements in all ordinary construction, having also a larger and unlimited number of additional and distinctly decorative patterns. We are in a position to make special molds according to any specifications and designs that may be sent us.

Insurance is also another interesting item. Miracle Blocks are fireproof, and consequently call for a lower rate of insurance.

A very desirable feature of the Miracle Double Staggered Air Space Block, as far as the maker is concerned, is its individuality. Those who become engaged in its manufacture have something which is identified distinctly with their business and their name. They are not hampered by others who might be

making a block of a similar nature. Their block is always different, with different and distinctive merits, which no competitor can attempt to duplicate or to equal.

### QUALITY VITAL.

We may go back centuries to the days when the Pools of King Solomon were built of cement; when the lookout towers of Ireland were built of cement by the Egyptian ancestors of the Irish; we may go back centuries in almost any part of the Old World and find that cement or concrete is not a product of the present generation, although it is having a new birth in modern building construction.

It needs little reasoning to convince one of the hard wearing qualities of cement. The Pools of King Solomon still furnish water to Jerusalem, and thousands of old pyramids, bridges and structures are still either standing or their ruins showing very little wear to the concrete itself. See page 2—Pantheon at Rome.

It is to be appreciated that the ancients did not have the materials for making concrete which are attainable at the present day, yet they worked "Miracles." However, the same danger existed in the early days as exists today, viz., the tendency to the use of imperfect material. Pliny states that the ruin of a certain town was caused by the fraudulent composition of cements. It is safe to state that whoever was at fault was no doubt ruined in business long before the town went down.

It is the manufacturer then of concrete blocks who must listen to the same note of warning that was justly sounded again and again in the ancient times, "Make good quality stone." Our success depends upon the manufacturers' success, hence we so often sound the warning note. No manufacturer can be successful and make many inferior blocks, and when it is just as easy and costs no more to be careful and produce quality, we do not see the reason for poor blocks from any plant. Good material is plentiful, and by following instructions we give for proportions and mixing anybody can become most successful in making good stones. We believe that all Miracle manufacturers are producing the best, for we have shown them how, but we feel called upon to place considerable stress on this point, because on it depends the success of the whole concrete industry. We urge every Miracle operator to make blocks according to the standard specifications, page 13.

### THE MIXTURE.

Every department of concrete manufacture plays a very important part in making a perfect block, and each department will be taken up carefully in the following pages.

The mixture is one of the most important items, and may be partially touched upon under the subject of "Materials."

There are various opinions covering the proper proportions to be used of cement, sand and stone to produce the best block. The variety of opinions is due directly to the various sizes of sand and stone and the quality of the cement to be used. The customary usage, however, among the manufacturers of the best blocks is to use sand four parts to cement one part. The sand under this calculation is relieved of all coarse aggregates of greater size than one-half inch in diameter, and we often find them using clear sand. The cement must always be the very best obtainable, and we always advise thorough tests before tying too tightly to any particular brand; in fact, a perfect block can only be obtained by careful experiments and tests covering the proportion of all ingredients—cement, sand and water, as well as with reference to the other departments of construction. Anybody can carry on these tests successfully.

NOTICE—On page 13, see Standard Specifications for the making of Hollow Concrete Blocks, as compiled by the Special Committee for the National Association of Concrete Block Manufacturers.

### PLEASE OBSERVE

That all figures and estimates in this Catalog are the most conservative from our view point, and far on the safe side for your calculations.





Illustration No. 1—Filling the Mold.

## CONSTRUCTION OF MIRACLE BLOCKS.

### IMPORTANT FEATURES TO A GOOD BUSINESS.

Concrete block manufacture is certainly a good business, it requires only ordinary common sense and business judgment to succeed. Being a new business, competition is less, and opportunities are greater. Unlike almost any other business, it is not hampered by outside conditions and circumstances. It is assisted most strongly by them. Everything is in favor of success. It is as easy to make good quality blocks as poor ones, but like everything else, it requires some study and strict compliance to thoroughly tested processes. Yet this is something anybody can easily do if they will. Our customers have free access to the services of our experts in making tests, and are urged to make tests of all materials to insure perfect concrete.

### MIXING.

The first essential in Miracle Block Construction is good mixing, and while, as a general rule, machine mixing is far superior, just as good mixing can, and always has been done, by hand. It only requires the proper amount of care. The sand should be measured and put into the box, the cement then also measured, and distributed evenly over the sand. With a shovel or hoe turn to each end of the box and back at least three times. In doing this several times the cheapest day laborer can learn to make a most thorough mixture. Water is then added with a sprinkler, and the mixture again turned over two or three times. As much water should be used as possible, without causing the mixture to stick to the mold. It is desired, by the way, to occasionally cover the faces of the mold with shellac, crude oil, or a solution of gasoline and paraffin so that water can be added more freely and the mixture work well.

Of course, the amount of water should be determined by test, and thus avoid experimenting with each batch. The proper

proportion of sand, cement and water cannot be governed by rule, because of the various sizes, as well as its various degrees of moisture, and the various grades of cement. In making perfect blocks, the manufacturer must make his own tests, which he can easily do, or have done, to determine the best proportions for producing a block with the most crushing and tensile strength.

We give full instructions to every Miracle customer for carrying on these tests. When the best proportions are found, no further tests are necessary as long as the same sand and cement are used. As a general rule, however, a proportion of four parts sand to one part cement is used, adding all the water possible without causing the mixture to stick to the mold.

### TAMPING.

Caution: In preparing to make blocks, see that all bolts holding the cores are well tightened before connecting. Select a pattern of the face plate you desire and set up the mold with back plate No. H-5, and end plates Nos. H-2 and H-3, for 12-inch blocks; or H-6 and H-7 for 9-inch blocks. (See double page insert.)

The mixture is then shoveled into the mold and two men proceed with the tamping. (See Ill. Nos. 1 and 2.) Here we have a most important, yet simple, operation. The mixture should be well tamped until all particles are thoroughly compact, forming a block that is absolutely solid, and without the smallest voids, or interstices. With a little practice, one easily realizes when the mixture has had the proper amount of tamping. After the material is compact further tamping is a waste of energy.

For the same reason, blocks made under enormous pressure instead of by tamping, are without further advantages, and are more expensive. Pressure will not make a good stone, the reason being that when pressure is applied the concrete is at once



# Miracle CONCRETE

If you are making the Miracle Block, you have something that your competitor can't touch.

The experience of others ought to be of interest to you.



Illustration No. 2—Tamping.

There is satisfaction in knowing that others are satisfied.

Begin before the other fellow does.

made compact at the top, bottom and all sides, in thin layers. These layers effectually form a seal and prevent the air on the inside from escaping and the air is compressed as the pressure is applied. As soon as the pressure is removed the air expands, forces the grains of sand apart, and makes a stone that is weak and porous and therefore easily subjected to disintegration.

In this connection, we would refer you to our process of air tamping.

To make blocks of the same consistency throughout, the tamping must be thorough and must be continued during the operation of filling the mold, so that the bottom portion will be as compact as the balance of block.

## RELEASING OPERATIONS.

The molds being tamped full it is not necessary to use a trowel, merely take a wooden pallet, which consists only of smooth boards of the proper length and width, fastened together with wooden cleats. Push this pallet slowly over the mold, catching whatever surplus material there may be in a shovel which returns it to the mixing box for re-use. (See Ill. No. 3.) The mold is now ready to turn over. This is easily done. (See Ill. No. 4.) There is a flange on the farther, or back plate, which keeps the pallet from slipping. You will also observe that there are two handles on the bottom plate by which the turning is made easy. The mold fairly rolls over until it rests squarely on the wood pallet.

After turning, each operator strikes with the mallets his end of the bottom plate, an upward blow, which loosens the cores from the concrete. Then each man, lifting his end, the cores and bottom plate are lifted from the block. (See Ill. No. 5.) A lever at each end or cam fastener unlocks the front and back plates of the mold so that all sides are taken away from the block. They are again fastened to the bottom plate and

are ready for a new block. While the mixer starts refilling the empty mold with the mixture he has been preparing during the tamping, etc., the operators remove the finished block for curing. By making your table in two sections you remove any possibility of jarring your fresh block while assembling the molds.

The whole operation is simplicity itself. No cogs to clog, nor mechanism to get out of order. There is a Miracle Mold for every form of block desired. Our mold parts are positive, no possible room for error, nothing adjustable, and insure square, perfect blocks as long as they can be used.

## CURING.

Your block is now made, but one of the greatest essentials of a good block is curing. We quote the consensus of opinion of all well-known and successful cement manufacturers in saying that "A block well made and poorly cured, or poorly made and well cured, is worthless." No matter how much cement you may put in, how much you may mix it, and how thoroughly you may tamp it into the molds, if it is not properly cured, it is worthless. The blocks should be piled as close together as possible and kept under cover, free from the wind and frost until they are thoroughly cured. They should be allowed to set before anything is done to them. It is impossible to give them too much water. A very good idea is to have a continuous spray play on the blocks. This will insure an even cure. Water should be applied for at least seven days, or until they will absorb no more moisture. It is then desired that they cure fourteen to twenty-one days more before using. Here is where many contractors, who may be in a hurry to complete their contracts, make a mistake. It should be remembered that it is a lack of quality in the block that will ruin one. It is most desirable to keep a good supply on hand after the blocks are cured.





Illustration No. 3—Floating Off.

They can just as well be kept in the open, and a good supply often helps to close a large contract.

On page 13 see Standard Specifications for the making of Hollow Concrete Blocks as compiled by the Special Committee for the National Association of Concrete Block Machine Manufacturers.

### THE FACING OF CONCRETE BLOCKS.

It will be noticed that the Miracle Block is not made face down. The mold is filled gradually and tamped evenly. The face, therefore, receives the same even and thorough tamping throughout. It is made the same as the balance of the block, compact and thorough.

We purposely made our mold so that the face would be tamped at the side. By the use of a thin, length-wise division plate, Miracle Blocks are faced.

A block to be the best must be made of a mixture as wet as possible without sticking to the mold. It is easy to see that the same mixture will stick more easily and quickly to the face of a block, which is tamped face down, than to the face of the Miracle Mold. The face, therefore, which is a most important part of the block, both as to design and as to the non-porous qualities of the block, cannot be as perfect as it might be without forfeiting other valuable qualities.

It must have even quality through and through. The Miracle Block is made with as good material in the back of the block where strength is needed most, as in the face, which represents the outward appearance and which combats with the attacks of severe weather and vice versa. No part of the Miracle Block is slighted in order to allow for better material on the face. "Good blocks through and through" are wanted of all Miracle Operators and our machines for making them are such that they are more easily and more economically thus made than not.

### COLORED STONE.

Satisfactory coloring of concrete has only recently been accomplished, but it has been done successfully, and by using natural pigments, or, in other words, by using colors whose ingredients are natural colors taken from the earth and not chemical compounds, very satisfactory and lasting colored stone can be made. Miracle Blocks have been colored very successfully and at a very slight expense. The entire subject of Miracle colors is covered in this book. It is the first complete line of dependable colors ever offered. The colors are permanent and the cost is very little. Miracle Blocks are usually colored on the face only, although many color them throughout.

### CAPACITY.

So much has been said regarding the capacity of machines, and we read of the phenomenal runs of thirty minutes or an hour, or of the short time it takes to make one block—claims that on their face are unreasonable. As we all know, there has to be a certain amount of material in every block, and the same must be thoroughly tamped. Our claims are not based on a 15 or 20 minutes' or even a day's test, but from actual experience, week in and week out, throughout an entire season. We have found that a team of three men, two to tamp and one to mix, will work to the best advantage, and that they will mix material for and produce 150, 8x9x24-inch blocks every day, and have plenty of time to care for the blocks made the two preceding days, that is, wet down the blocks made the day before, carry to the storage yard the ones made the second preceding day, and return the pallets to the mold ready for use. This is with one mold and hand mixing. Remember, we furnish two distinct molds in Exhibit "A," and you can easily double your capacity by doubling your number of men; or, if you desire to increase your force you will find fifty blocks per man for every ten hours a fair average, some make sixty.



# Miracle CONCRETE

Take  
advantage  
of our  
extensive  
advertising.

The  
Miracle Block,  
the block  
with a  
distinctive  
feature.

And combines  
all the Points  
of Merit.



Miracle Blocks,  
the kind  
specified by  
two Governments.

The  
Miracle Block  
is the only  
moisture  
proof block.

We carry a  
complete  
line.

Illustration No. 4—Turning.

## COST.

With a MIXTURE of one part of cement and four parts sand, three men will make 150 or more standard size blocks, 8x9x24-inch, per day, and for this you will require six barrels of cement, 3½ yards of sand. Now, figuring the labor, sand and cement at fair, average prices, we make the following deduction:

3 men at \$1.75 per day.....	\$ 5.25
6 barrels of cement at \$1.70.....	10.20
3½ yards of sand at 50c.....	1.75
<b>Total, 150 blocks.....</b>	<b>\$17.20</b>

Dividing this total by 150, the number of blocks produced by one mold, we have an average COST of a trifle over 11 cents each. If any of our figures do not correspond with the local conditions which you have to contend with at your town, revise them, substitute prevailing prices, and thus arrive at what they will actually cost YOU.

Miracle Blocks can be laid in the wall for 5c a cubic foot and good wages made by the mason. (See special instructions on the laying of Miracle Blocks, under General Information in Index.)

## SUMMARY.

WHY THE MIRACLE BLOCK IS THE BEST. DEMONSTRATED FACTS, NOT THEORIES.

1. It is made of concrete, recognized and demonstrated to be the most durable building material.
2. It grows harder and better with age.
3. It forms continuous air chambers from the bottom to the top of a Miracle wall.
4. Its staggered air space principle makes each air chamber back up a section of solid wall. There is no direct connection between interior and exterior walls.
5. It is made by tamping, not by pressure; therefore, it is of uniform texture throughout.
6. It forms the strongest walls.
7. It is frost and moisture-proof.
8. It is fireproof and indestructible.
9. It saves the builder at least 20 per cent.

10. It calls for no lathing or furring, and makes a perfect job with only a thin coat of plaster applied directly to the inside of the Miracle walls.
11. It needs no painting.
12. It has the appearance of the best cut stone when laid, and will wear better.
13. It is made by local manufacturers, therefore saves freight and employs home labor.
14. It is easily laid by one man at 30 to 40 per cent cost of laying brick, and 50 to 75 per cent of stone.
15. It is laid with cement mortar so that the joints become part of the wall.
16. It offers an unlimited field for architectural designing.
17. It has demonstrated its great value in the past.
18. It is performing "Miracles" at present.
19. It is the building material of the age.



# Standard Specifications.

## Cement Users' and Builders' Guide.

The following are the specifications for the making of hollow concrete blocks, as compiled by a special committee and adopted by the National Association of Concrete Machinery Manufacturers, and approved by the Northwestern Cement Users' Association, the Iowa Cement Users' Association, and others.

Owing to the lack of proper instructions some concrete block manufacturers have unfortunately fallen short of perfection in their product. Some inferior blocks were made by early manufacturers through inattention to instructions and lack of experience. Some did not use enough cement; some mixed it poorly and others did not use enough moisture in curing. Many good blocks also have been poorly laid. Under the following specifications, which are clear and simple, and which are dependable and worthy of careful study, there is not the smallest opportunity of producing a poor concrete block. The result is that the former injury to competent, conscientious and good quality cement block manufacturers is eliminated and the obstacle to further adoption of this most excellent and promising building material has been done away with and the building public is protected.

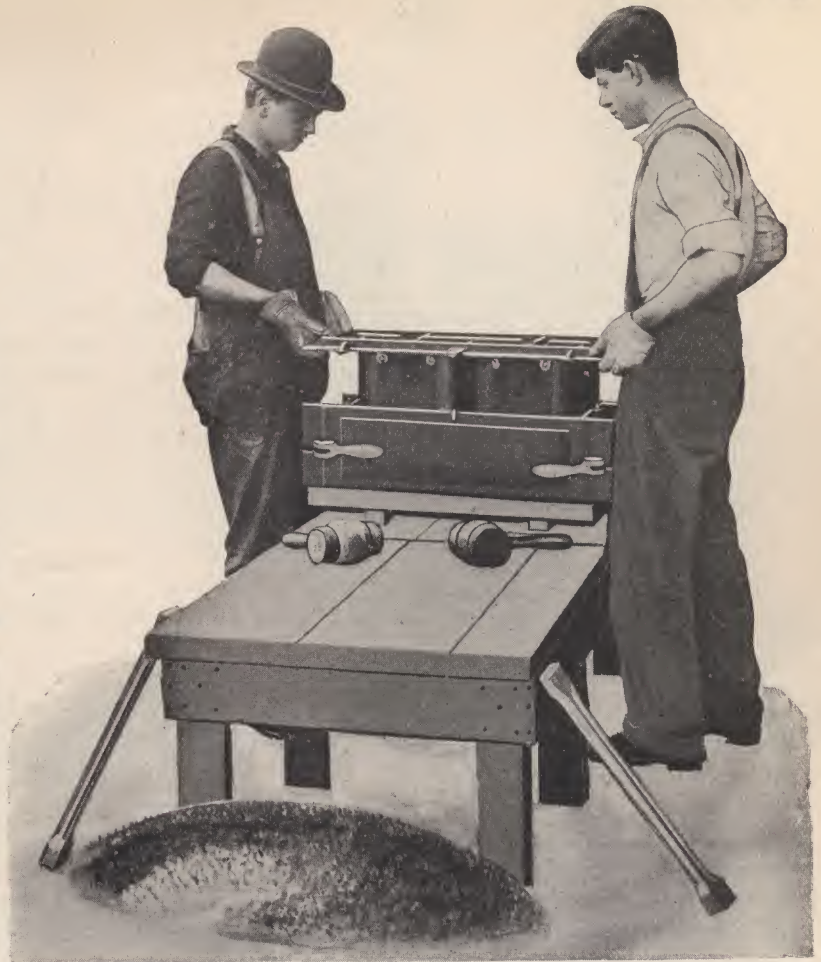


Illustration No. 5—Removing the Cores.

### DEFINITIONS.

#### SAND.

Such material as will pass through a screen  $\frac{1}{4}$ -inch mesh, and is retained in screen having mesh 1-64 of an inch. This applies to river sand, bank sand, or screenings from a stone crusher.

#### GRAVEL.

Such material, obtained either from bank or river, of such size as is retained in a screen having  $\frac{1}{4}$ -inch mesh.

#### CRUSHED STONE.

Such stone from a crusher as is retained in a  $\frac{1}{4}$ -inch screen.

#### BANK GRAVEL.

Such material as is obtained from a pit or river containing both sand and gravel.

#### AGGREGATE.

Any material, such as broken stone, gravel, or other fragments used with cement and sand mortar in making concrete for the purpose of reducing the cost and adding to the strength.

#### VOIDS.

The space existing between particles of sand, crushed stone, or materials of which an aggregate is composed.

Machinery  
**CONCRETE**

### CEMENT.

Any American or imported Portland cement, which will pass the tests required by The American Society for Testing Materials.

### QUALITY OF SAND.

Sand suitable for concrete work must not be finer than the above described; must be sharp and gritty; not soft or loamy; must be free from loam or other foreign material, and must not contain any perceptible amount of clay, or other soluble matter. Some authorities concede that clay to the extent of ten per cent. in sand or gravel is not harmful. This committee is of the opinion that any perceptible amount of clay is unsafe. Crushed stone must be reasonably free from dust, and must be retained on the same sized screen as bank sand, viz.,  $\frac{1}{4}$ -inch. Gravel or crushed stone must be free from loam, dust, or other foreign material, and must contain no soft or rotten stone.

### DETERMINATION OF AMOUNT OF CEMENT TO BE USED WITH AGGREGATE.

A theoretically correct concrete should consist of sand and gravel, or crushed stone, or a combination of them containing any amount of cement equal to the voids in such combination. In other words, interstices should be filled with cement.

To state this in another way, if the concrete is made up of sand and gravel, such proportion of cement should be used with the sand as is equal to the voids in the sand, and such quantity of this resulting mortar of sand and cement should be used with the crushed stone or gravel, as will fill all voids in the crushed stone or gravel.

Re-stating this in a few words, the cement should fill the voids in the sand, and the resulting mortar should fill the voids in the aggregate.





Illustration No. 6—Removing the Block for Curing

## DETERMINATION OF VOIDS.

To determine the voids in the sand, or the material to be used as an aggregate, what is known as the "water test" is employed. In preparing for this test the sand or gravel must be perfectly dry. Sand has greater volume when wet.

A receptacle holding a known amount, such as a quart jar, is filled with the material to be tested, sand for example, and into this receptacle is poured as much water as the sand, or other material will absorb. The water should be measured. The amount of water absorbed indicates the voids, and also indicates the exact amount of cement which it is necessary to use in order to produce a solid concrete.

In making hollow blocks, if no gravel or other coarse aggregate is used, the result of this test should give the proportions of sand and cement to be used in block manufacture. Average sand will absorb 20 to 30 per cent. of water, indicating from 20 to 30 per cent. of voids also indicating that the proportion of one part cement to from three to four parts of sand are required to make a solid block.

The proper selection of sand and aggregate material is important. Care should be taken that the particles vary so in size as to reduce the voids to the smallest amount possible. With this careful selection the amount of cement required to produce good work is greatly reduced.

## MIXING.

After the materials are selected, they should be mixed together dry, until thoroughly incorporated, or, in other words, until the mass is of an absolutely uniform color. Water should then be applied, and the thorough mixing repeated. The amount of water should be in all cases as great as possible, without causing the materials to stick to the molds when the stone is removed.

A little more care in the treatment of the face plates of any machine will enable the manufacturer to use a wetter concrete than is usually employed. Only such size batches should be mixed at one time as can be used up within thirty minutes from the time the water has been added.

The concrete should be placed in the mold in small quantities, and tamping should begin immediately upon the placing of the first shovelful, and continue until the mold is full. The material should be tamped with a tamper having a small face, and short, quick, sharp blows should be struck.

In faced blocks, the face should be composed of two parts sand and one part of cement, the same being mixed in the manner described above.

Owing, however, to the excess of cement used in facing, and owing further to the fact that the cement is what makes concrete sticky, the facing cannot be used as wet as the balance of the block is made. Great care should be taken to tamp the concrete thoroughly into the facing, so as to unite the two into one solid stone.

In the wet process the amount of water used is such as will produce a plastic, or flowing condition, in the concrete, but not enough to wash the cement from the other material. When placing the material in the molds the entire mold is filled with one pouring.

No stone having transverse ties or webs cracked should be used or even allowed to cure. Should a slight crack occur in moving the green stone, throw the material back, and make it over. In no case use a cracked stone in a building.

## CURING.

All stone made by the medium wet, or medium dry process, should be made under cover, and kept under cover for at least ten days, protected from the dry currents of air. If shed room is not available to store a ten days' output, the blocks should be carried out after the initial set has taken place, and covered with canvas, hay or other covering, which will retain moisture, and at the same time keep the dry air from circulating around the block. Under no circumstances should blocks be made under the direct rays of the sun, nor should blocks made by this process be exposed to either sunshine or dry winds while curing.

The blocks should be gently sprinkled as soon as possible after making, that is, just as soon as the cement has set sufficiently that it will not wash. Blocks should be kept wet from ten days to two weeks, and should never be removed from the yard for the purpose of using in a building until they are from thirty to sixty days old. **THIS IS VERY IMPORTANT.** A green block will surely crack in the building on account of shrinkage.

## LAYING.

In laying cement stone a soft mortar composed of one-half cement mortar and one-half lime mortar should be used. This mortar should be made with fine sand free from stone, and should be buttered on the ends of the stone before laying. The stone should be laid in the mortar and worked down. Do not leave end joints open until after the building is completed, because when the end joints are filled at this time shrinkage in mortar is liable to loosen it, causing the mortar to fall out, leaving openings through the wall.

The spreading of mortar is very important, because if mortar is unevenly spread so that it is thicker under one portion of the stone than under the other, a leverage is created, which under the weight of the wall above is liable to produce a crack in the stone. There is a slight taper to the core, which makes the air spaces in the Miracle block. In laying the blocks you will have better space for mortar, and blocks will be better by laying them with the small end of the air spaces up.

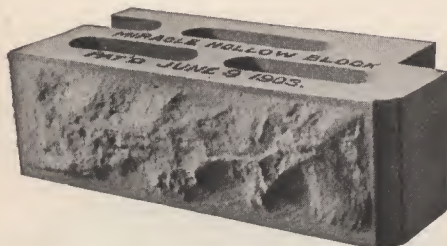
## COLORING.

In using coloring matter with concrete, the color should always be mixed with the cement dry, before any sand or water are added. This mixing should be thorough, so that the mixture is uniform in color. After this mixing the combination is treated in the same way as clear cement.



# The GREATEST BUILDING MATERIAL

## Condensed Facts Showing Why Miracle Blocks Are Best for Builders, Contractors and Owners.



Reveal Block for Boxed Window Frame.  
Pattern 9-in. Block H-163. Pattern 12-in. Block H-165.  
Price \$2.50. Price \$3.00.

It is made of CONCRETE, which is stone, not "artificial," but "real" in its properties. It is made by a correct scientific composition of sand, gravel or crushed stone, good Portland cement and water. A perfect crystalization of the cement by means of the water forms with the aggregate a hard, impregnable solid, which grows harder as it grows older. History verifies this fact.

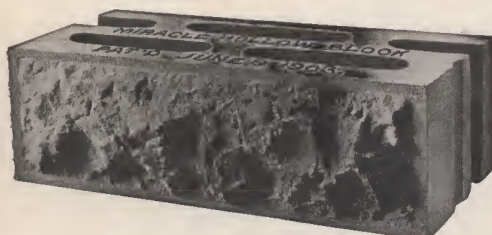
### MATERIAL THE OLDEST AND BEST.

CONCRETE is not a new product of to-day. It is an old product of the early ages. Its hard wearing qualities through centuries of weather have aroused the people of to-day. It is having a new birth in modern building construction. Ninety per cent. of the material in our largest and finest buildings is CONCRETE.



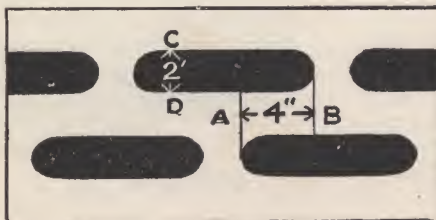
Special Rock Face. 12-in. Block.  
Face Plate H-192.  
Price \$7.00.

### THE MIRACLE BLOCK ADDS DOUBLE STRENGTH TO THE WALL.

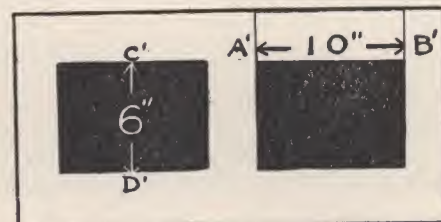


Special Rock Face. 12-in. Block.  
Face Plate H-194.  
Price \$7.00.

No one doubts the strengthening value of an air space when in the form of a hollow iron tube. In the form of a stone column the principle is the same, and the hollow column is stronger than if it were solid. In the form of a cement wall, with single air spaces, there is a series of hollow stone columns each firmly united. In a wall of double staggered air spaces there is a double series of hollow stone columns alternated and firmly united. It is therefore the strongest possible form of wall.



Showing the Narrow Spans in a Miracle Block.



Showing the Wide Spans in a Single Air Space Block.

### ANOTHER REASON FOR STRENGTH.

The Miracle Block gains in strength over most single air space blocks in the following particulars:

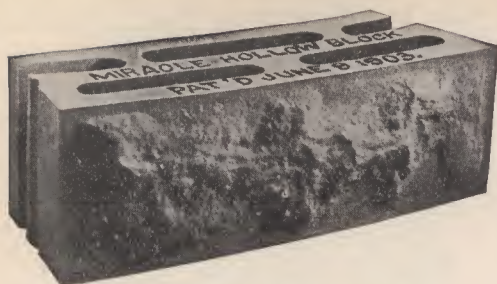
The distance between connections of solid concrete is less. See illustrations on this page. In ordinary blocks the air spaces are about 10 inches long, necessitating a 10-inch span between solid connections. In the Miracle



Rock Face Interior, 9-inch Wall.  
Face Plate H-175X, H-175.  
Price \$10.00.



## The Greatest Building Material—Continued.



Circular Block. Face Plate H-22. Price \$7.00.  
Back Plate H-5. Price \$6.00.  
In ordering specify inside diameter and width of block.

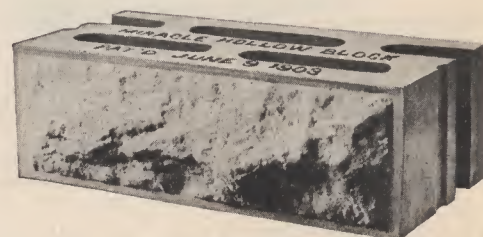
Block there is only 4 inches between connections, which are staggered, therefore strengthen any possible weakness caused by an air space.

In addition to this there are three solid walls of concrete firmly connected at alternate points by short two-inch spans of concrete, while the single air space block only has two walls connected every ten inches by at least a four-inch span of concrete.

### A CONTINUOUS AIR SPACE WITHOUT SACRIFICING STRENGTH.

By the Doubled Staggered Air Space the effect of a continuous air space completely throughout the building is obtained, yet retaining the full strength of a "one-piece" wall. In the Miracle Block there is no point of direct connection between exterior and interior walls. Every section of contact between walls is broken by an air space. It forms a truly hollow air space completely around the building, yet the entire weight of the building does not rest entirely on any inner wall or veneer, as it does in some forms of concrete construction. It rests on one solid wall of nine or twelve-inch thickness.

The Miracle Wall therefore forms a complete air space and has double strength combined.



Special Rock Face. 12-inch Block.  
Face Plate H-193.  
Price \$7.00.

### FROST AND MOISTURE PROOF.



Wreath Belt Course, 9-inch Corner Block.  
End Plate H-72. Face Plate H-70.  
Price \$8.00. Price \$6.00.

ered on account of so much air on all sides before it can travel one-half the necessary eighteen or twenty inches.

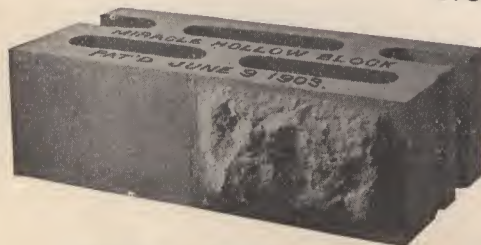
The reason why walls "sweat" is found in the fact that warm air coming into direct contact with a cold surface, condenses the moisture in the air, and we say the walls "sweat." As the heat from the interior air warms the inner portion of the Miracle Block, and the double staggered air spaces are in the direct path of the radiation the inner surface never gets cold, hence never "sweats."

The Miracle Block forms a building that is positively Frost and Moisture Proof. Why? Because air space is a non-conductor of frost and moisture and because air spaces entirely surround the building. There is nothing directly connecting the inner and outer surfaces of a Miracle Wall. Every section of concrete is backed by an air space. Frost and moisture or heat cannot enter a Miracle Wall at any point without striking an air space where it becomes ineffective by diffusion. Were it to encircle the air space (which it has no tendency to do), it would become thoroughly filt-



Special Rock Face, 12-inch Block.  
Face Plate H-196.  
Price \$7.00.

### NO FURRING AND LATHING.



Rock Face, Interior Angle, 12-inch Wall.  
Face Plate H-29. Price \$6.00.

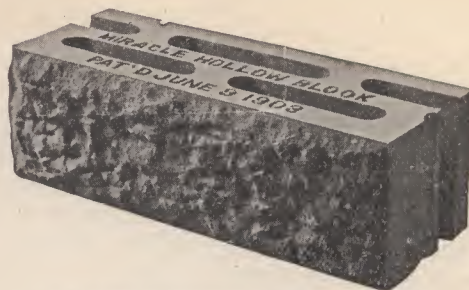
Plaster is safely applied direct to the back of a Miracle Wall. Frost and moisture are the elements which make plaster crack and peel off. Since no frost or moisture can reach the inside of a Miracle Wall, plastering direct is perfectly safe. This statement is not based upon mere theory. It is confirmed by the experience and statements of hundreds of builders and owners. By using the Miracle Block, therefore, there is a saving from twenty to thirty cents a yard usually



## The Greatest Building Material—Continued.

spent in lathing and furring. This labor and expense cannot be safely eliminated with any other form of Block except the Miracle.

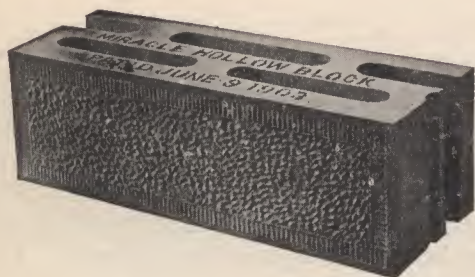
Another great advantage in eliminating the furring and lathing is that there is nothing to decay. In single air space block buildings, or solid brick walls, frost penetrates and causes a sweat which in time causes decay to the lathing and furring. The Miracle Block avoids all this.



Rock Face Without Margin, 9-inch Block.  
Face Plate H-94. Price \$6.00.

### FIRE-PROOF.

CONCRETE itself is fire-proof. The Double Staggered Air Spaces of the Miracle Block again serve a further important duty. They cause a double circulation of air from top to bottom, both near the hot surface and the cool surface of the wall, whether those surfaces be inside or outside the building, in such a way that the heat does not crack, or check the wall. This feature has been tested in every possible manner, both by actual fire tests and by actual fires in and around the buildings built of Miracle Blocks. The result in every case has been in favor of Miracle Blocks as a fire-proof building material. A building of Miracle Blocks, therefore, calls for the lowest rate of insurance.

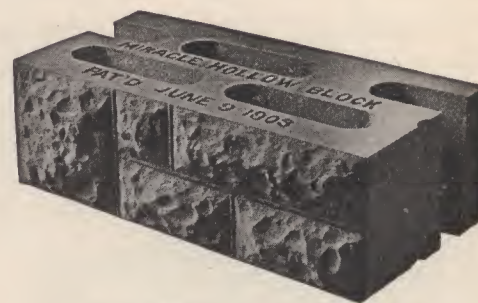


Hammered Face, 9-inch Block  
Face Plate H-12

### AT LEAST TWENTY PER CENT. SAVED.

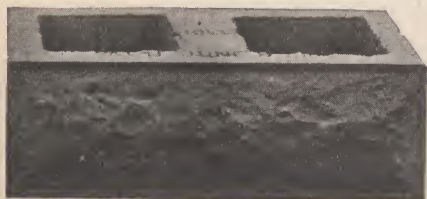
For equally as good a building of any other material, builders using Miracle Blocks at a cost of 40 to 50 cents each save at least 20% of their money. It is estimated by figures based upon actual cost of material and labor, that Miracle Concrete Blocks will displace at a saving, field and quarry stone range work (\$2.50 per perch) 25% to 40%; pressed brick (\$26.00 per M.) 50%; cut Bedford stone (\$1.50 per cubic ft.) 400%.

These percentages are conceded to be fair averages. In localities where lumber is high priced, there is a slight saving by using Miracle Blocks. Where lumber is sold at a reasonable price, the cost with either material is usually about the same, but the Miracle building is at least 50% better than the wooden structure.



Broken Ashlar Face, 12-inch Block.  
Face Plate H-140. Price \$8.00.

### A SAVING AT EVERY TURN.



Two-Flue Chimney Block, 12-inch Wall.  
Face Plate H-198.  
Price \$7.00.

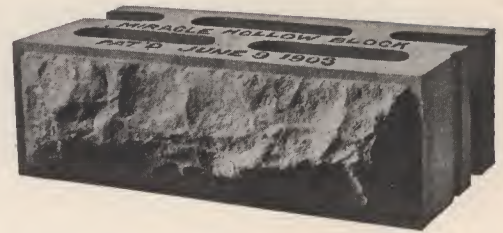
Aside from the minimum 20% saved according to the foregoing paragraph, the Miracle Block has many other interesting "money saving features." It is easily laid in the wall by one man at a cost of 15% to 50% less than brick or stone. There is no painting bill every other year as with wooden buildings. The insurance risk is much less. It is, or always can be, made by local manufacturers with mostly local material, therefore large freight bills are saved where other building material must be shipped from a distance. Furring and lathing may be eliminated and plaster applied direct.



# The Greatest Building Material—Continued.

## EVEN QUALITY THROUGH AND THROUGH.

The Miracle Block is made with as good material in the back of the block, where strength is needed most, as in the face which represents the outward appearance and which combats with the attacks of severe weather and *vice versa*. No part of the Miracle Block is slighted in order to allow for better material on the face. "Good blocks through and through," are valuable instructions to all Miracle operators and the machines for making them are such that these instructions are more easily and more economically carried out than not.



Special Rock Face, 12-inch Block.  
Face Plate H-195.  
Price \$7.00.

## WELL TAMPED.

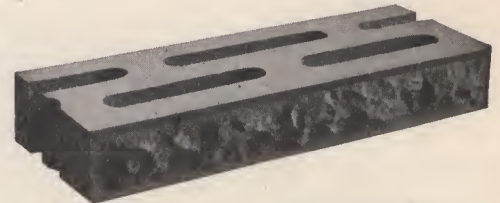
All Miracle Blocks are thoroughly and evenly tamped from the bottom of the mold to the top, as the block is being made. All the particles must be tamped thoroughly compact all the way through and all air must be thoroughly worked out from the bottom of the mold to the top, as the loose material is forming a solid. In this way, and in this way only, can the best cement blocks be made. The Miracle Machinery allows for no other method.



Exterior 9-inch Corner Block.  
Face Plate H-62.  
Price \$7.00.

## TIGHT JOINTS WITH MIRACLE BLOCKS.

See that groove in the end of every Miracle Block? It insures an absolutely tight joint. When blocks are placed end to end, these grooves form oval or oblong openings the full depth of the block into which soft slush cement is poured, sealing every joint absolutely tight. Even a good block is worthless if not laid properly. Miracle Blocks are made so they will be laid properly.



One-Half Height Rock Face 9-inch Block.  
Face Plate H-90. Price \$6.00.

## PERFECT NATURAL FACES.

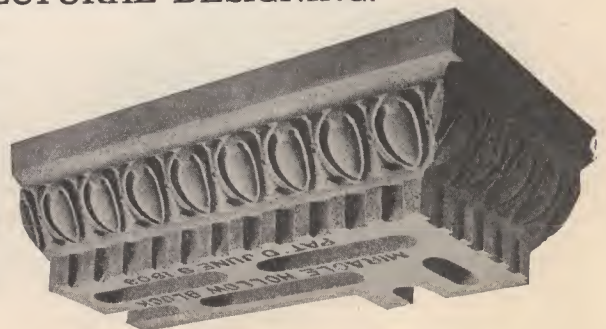
In making the face plates for Miracle Machines, much care and money is spent to secure a perfectly natural pattern. The best stone is cut and prepared to the proper size and the patterns made from the original stone. In this way, and by using the very best quality of iron, face plates are perfected which insure perfect, natural and sharp Rock Face Miracle Blocks. Every plate of the Miracle machine is strongly reinforced so that every block, especially the face, is square and true. Miracle Blocks cannot be found where the face shows a curved surface, as is often found in blocks made on other machines.



Special Rock Face 12-inch Block.  
Face Plate H-197.  
Price \$7.00.

## UNLIMITED FIELD FOR ARCHITECTURAL DESIGNING.

Miracle line of Cement Machinery is so complete that all forms and styles of buildings can be built of Miracle Blocks. There is no end to the possibilities in architectural expression through the medium of the Miracle Block, and there is nothing in that line which any architect may specify that cannot be made on Miracle Machinery. As beautiful residences, in fact, as beautiful buildings of any kind, can and have been designed and erected of Miracle Blocks as have been built of any other material.



Egg and Dart Cornice, 9-inch Wall. See Index.





## PRIZE CUP

GIVEN TO THE

### MIRACLE PRESSED STONE CO.

By the MINNEAPOLIS COMMERCIAL CLUB,  
FOR  
Most Complete Exhibit of Concrete  
Machinery.

At Convention held in St. Paul, 1907.

## THE PORTLAND GRAND MEDAL.

Awarded the Miracle Pressed Stone Company.



It is a significant fact that at the first and only large fair at which we had an exhibit, we were awarded the Grand Gold Medal. The awarding committee for the Lewis & Clark Centennial Exposition at Portland, Oregon, awarded the Grand Gold Medal, which is the highest prize for concrete building blocks, to the Miracle Double Staggered Air Space Building Block.

This will be of special interest to those about to buy a machine, because they, of course, want to know positively which Block is the best and which Block has the most merits. The awarding committee at Portland pronounced the Miracle the best. They based the award upon the distinctive features of the double and overlapping air spaces, running vertically in the wall, allowing the air to circulate naturally up and down, giving additional strength and proving absolutely moisture and frost proof. These points of merit so far surpassed everything which other blocks could show, that the prize was easily won.

## MIRACLE INFORMATION BUREAU.

FOR THE BENEFIT OF CUSTOMERS AND FRIENDS EVERYWHERE. SPECIAL DEPARTMENT  
IN CHARGE OF COMPETENT SPECIALISTS. THREE DEPARTMENTS.

For the benefit of our customers, present and prospective, we have established a Bureau of Information, in charge of men who are foremost in their respective lines of work. To facilitate the work, we have divided it into three distinct departments, as follows:

The Material and Mixing for Cement Products. The Molding and Tamping of Cement Products. The Curing of Cement Products.

UPON THE QUALITY OF THE BLOCK RESTS  
ITS SUCCESS.

We are vitally interested in the success of the Concrete Industry, and therefore, will do our part to keep it growing.

The services of this special department with its specialists as correspondents and as advisers are hereby placed at the command of our customers and friends, both at home and abroad. It is the business of these specialists, and will be their pleasure, to answer questions that are asked in good part for a practical purpose, and to offer suggestions and advice; in short, to be of help in any way they can that is consistent with their position and duties.

We hope all cement users, or prospective cement users, will feel free to write to us at any time, making their wants known, and depend upon us for a prompt and courteous reply. Address, Information Bureau, Miracle Pressed Stone Company.

## BOOK OF CONCRETE HOUSE PLANS.

A Handsome, Practical Portfolio prepared primarily to meet the demand of Miracle Concrete Block users.

There is a demand for the services of many architects in planning and designing dwellings and other houses to be built of the greatest of modern building materials, concrete.

The purpose of this book is to place at the disposal of those who wish to build of concrete, a number of plans of houses that have passed through the initial stages—houses that have already been built and have proven successful.

The elevations and general views are from photographs; and the floor plans (and details where given), are from the actual architect's drawings. The houses shown include cottages, bungalows, stables, city and country homes, banks and other medium size buildings.

It is contemplated to add to and enlarge this portfolio as rapidly as new plans and new photographs are prepared—the purpose being to select only the best types and most satisfactory plans.

As may be inferred, the object of this publication is not to make money out of the sale of the book of plans, nor even out of the sale subsequently of the working drawings. What we wish above all, is to show to the prospective user of Miracle Concrete Blocks that he has here a material that lends itself to the highest form of architectural design.

We wish this fact to be remembered, above all others, that as a log house is different from a frame cottage, and either may be pretty, if the design is adapted to the material, so a concrete building based upon a design suitable to the material should be a most satisfactory architectural creation. Concrete houses built in the past few years have not always been pleasing in design, but the reason is, that the attempt was made to imitate a style of architecture suited only to frame or brick. Now that concrete is recognized as the greatest of modern building materials, it will be found not only the most economical, but the most adaptable of all. This book is intended as a step in that direction—the best that can be done at this time. Price, 50 cents.



# MIRACLE EQUIPMENT

## MERITS.

### SIMPLICITY OF PRINCIPLE.

We have found that the Miracle Exhibit "A" Machine, on account of its extreme simplicity and wide range of capacity, gives the greatest degree of satisfaction to our customers. Each Exhibit "A" Machine is practically two machines in one, consisting as it does, of two complete bases with separate sets of cores, one for making blocks 9 inches in thickness, the other for making blocks 12 inches in thickness. All face plates for different designs come in complete sets for making each design any length from 6 inches to 24 inches, and these plates are all adjustable to either base. They can therefore be operated as two molds at once, with separate crews of men.

We avoid all cogs, gears, cranks, or other objectionable features which are continually clogging or getting out of order. With the Exhibit "A" outfit you produce perfect blocks with clean cut sharp corners and edges, and every one of perfect shape and exact size. This is absolutely essential, as it is impossible to produce a perfect wall out of blocks of irregular size. Get the Miracle Machine which insures a perfect product.

### MANUFACTURE.

In the manufacture of these machines we exercise great care to obtain a perfectly natural pattern for the various designs of faces, and at a great expense stone is cut and prepared the exact size of the pattern to be made, whether it be in rock face, hammered face, or beveled stone. From this stone is taken a large number of Plaster of Paris impressions. Invariably, nine out of ten of them are lost by breaking before a perfect iron pattern is secured. In making these preliminary patterns we estimate precisely the proper allowance for the double shrinkage which takes place in making the iron pattern, and from it the regular castings. Castings for face plates in this outfit are made with unusual precautions; only the very best quality of iron is used. A special molding sand, costing \$100.00 a ton, is necessary to produce the clean-cut, defined patterns.

### THOROUGH INSPECTION.

In ordinary machine work, slight defects in castings are covered up with what is known as an iron cement and paint, and are seldom noticed until in actual use. But with the Miracle outfit none of these irregularities can possibly occur. No

expense is spared to make every individual part exactly fitted for its purpose and of the highest degree of quality obtainable. Every part coming from the foundry passes through the hands of an expert for inspection, and if the slightest trace of irregularity appears in any casting, it is immediately thrown to the scrap pile. The perfect parts are distributed to the various machines, which are operated by skilled mechanics, and by means of shapers, planers, emery wheels, filings, etc., the plates are brought to the highest state of perfection. Every edge is ground to a true plane, every joint made a perfect fit—all tips and bolts are chilled steel, and fitted with skill and preciseness.

### CAREFUL TESTING.

When the plates are ground, planed, bored and perfected, they are then transferred to the assembling room, where experienced mechanics actually fit and inter-fit all the parts of every machine separately. Here another rigid inspection takes place, to see that every part is perfect, and that the machine is absolutely true to the square and perfect in every detail, and all parts checked in. It is then sent to the packing room, where each machine is again checked for shortage.

### REINFORCEMENT.

We find that most machines on the market soon give way, as they cannot stand up under the vigorous tamping which it is necessary to give the material in order to make a perfect stone. The "Miracle System" of reinforcing and bracing all plates, as shown in mold plates in accompanying illustration, (page 25 insert) insures them indefinitely—they never give out. The back side of each face and back plate is strengthened with reinforcing ribs so that they absolutely cannot spring.

### FACES EXPLAINED.

The Plain Face Plates produce a block equal to the most expensive rubbed stone.

The Rock Face Plate designs are taken from natural stone, and imitate it perfectly.

The Hammered Face Plates have a tooled margin and the product is a marvel of beauty.

The Bevel or Paneled Face Plates are a work of art, and a wall laid of these stones is the most pleasing to the high-class architect.

The Water Table Plates produce a stone for water table,  $1\frac{1}{2}$  inches thicker than the regular size, with a beveled wash of  $1\frac{1}{2}$  inches, and gives the building a very finished appearance.



AN UP-TO-DATE MIRACLE PLANT



## EXHIBIT "A."

### A THOROUGHLY COMPLETE AND PRACTICAL OUTFIT.

A more complete and generous outfit for launching into the concrete industry has never been produced, nor has anything as good ever been attempted, as our Exhibit "A." It is not experimental. We did not place it upon the market until from exhaustive and expensive experiments, we found that it was simplest and by far the best from a standpoint of utility, speed and endurance that could be produced. We were right. There is nothing that can equal it. Its many years of usefulness demonstrate that point conclusively. Aside from this it produces a block that no other machine can, viz., the Miracle Double Staggered Air Space Block. Further—the mold is perfect and is guaranteed to produce perfect blocks as long as it can be used.

### MORE EXHIBIT "A" MACHINES IN USE THAN ANY OTHER MAKE.

In spite of its being in existence only four or five years, there are more of our Exhibit "A" Outfits in successful operation in the United States and foreign countries than any other two machines combined. Statistics show conclusively that there are more successful operators of the Miracle Exhibit "A" Outfit than with any other machine.

### DOUBLE CAPACITY.

As will be noticed, there are two bases sent with every Exhibit "A" Outfit, one for a 9-inch block, and one for a 12-inch block. Any of the various face plates can be used on either of these bases. All ends and face plates are interchangeable upon these two bases, which, in reality, give you two complete machines. Therefore, both bases can be in operation at the same time, one making 9-inch blocks and one making 12-inch blocks of all the different face designs. This double capacity is not possible with any other machine, yet is of inestimable value to the purchaser. It often-times saves the buying of an extra machine.

### PRACTICAL SIZE BLOCKS.

The sizes of stone made on the MIRACLE Outfit are approved by the best mechanics the world over. We have arrived at a practical weight and size, and have a well proportioned stone, a sort of happy medium between the too heavy and too light. A 32-inch stone, weighing 140 to 160 pounds, is awkward to handle from the time it is taken out of the machine until it is laid in the wall. A 16 or 18-inch stone is too small and requires too much handling to produce a wall. The "MIRACLE" standard sizes, 12x24x8-inch, and 9x24x8-inch, weighing 100 pounds and 80 pounds, respectively, can be handled with ease by one man. Twenty-four inches is the standard length of "MIRACLE" blocks. All face plates come in sets to produce full length (24-inch), three-quarters length (18-inch), half-length (12-inch), and one-quarter length (6-inch). All our face plates are carefully made and machined, so as to produce blocks which are unequaled in design and perfect in shape. Special sizes of molds may be obtained if necessary, though the standard sizes are usually accepted.

### SPECIAL GUARANTEE.

We, as a corporation, guarantee every Miracle Machine, especially Exhibit "A," to be exactly as herein represented; that they will be complete in detail, perfect in construction, and without flaws.

Our Guaranty Bond (see the back of the Order Blank) is the most fair and liberal proposition offered by the manufacturer of any machinery. It means just what it says and we carry out its terms cheerfully.

### THE DIFFERENT PLATES.

The regular complement of Face and Design Plates consists of 35 Plates which are interchangeable, and produce Plain, Chipped Rock Face with plain margin, Hammered Rock Face with margin, and Bevel or Paneled Faces, Water Table Front and Ends. They are cast and ground for every manipulation for 6-inch, 12-inch, 18-inch and 24-inch lengths, and still maintain the invaluable Double Air Spaced feature. In addition, face plates are furnished to make 1/2-plain 1/2-rock face with margin, or 1/2-bevel or panel face blocks, which are used for joining angles. Three special angle backs, No. H-8 for 9-inch corners, No. H-65 for chimneys in 9-inch wall, and No. H-54 for water table corner blocks, are included. Three extra heavy, plain, straight back Plates, No. H-5, H-5, H-53, are furnished, that both sets of Molds may be operated separately, and at the same time without annoyance. In this connection, permit us to emphasize that in adjusting or changing faces or end plates for producing the different designs, no bolts or hinges are used. Therefore the exchange can be speedily made, and a fit guaranteed, as there are no wearing parts.

If you so desire, any of our special designs—Vertical or Horizontal Tooled, Wreath Belt or special rock faces, may be substituted for any of the regular designs in Exhibit "A."

Exhibit "A" Outfit is also supplied with Chimney Cores, and you can remove all cores on 12-inch base and make a double flue, or remove half of them and make a half Double Air Space Block and half Chimney Block. To make a chimney block on a 9-inch Mold, remove half the cores, substituting one Chimney Core, use plate H-65 for back, and you will have a half 9-inch Double Air Space Block and half 12-inch Chimney. Every part enumerated above is furnished with regular Exhibit "A" Outfit.

### PRACTICAL DEMONSTRATION OF CAPACITY.

Many of our customers have greatly increased our estimates of capacity. Working two men at each Mold, 150, 9x8x24-inch, and 120, 12x8x24-inch perfect MIRACLE Double Air Spaced Blocks have been produced per day; 270 blocks have often been produced every 10 hours by five men, two at each mold, with one helper to mix the concrete. Even this large capacity has been bettered by many Miracle operators. To give you a better idea of how much this means, we will say that one 9x8x24-inch block equals one cubic foot in wall, or 22 1/2 building brick; and weighs 80 pounds. One 12x8x24-inch block equals 1 1-3 cubic foot in wall, or 30 brick, and weighs 100 pounds. Hence, with the MIRACLE Exhibit "A" Machine regularly equipped, will, operated as above, turn out Concrete Building Blocks, perfect in design and construction, equal to 6,975 building brick, or 310 cubic feet of wall. As the standard MIRACLE Block is 8 inches high by 24 inches long, each has outside wall surface of 192 square inches. Therefore, the day's run of 270 Blocks would equal 353 square feet in wall. The standard MIRACLE Block has 28 8-10 per cent. air space, and is approved and admitted by every City Building Ordinance and Inspector in the United States.

### A GREAT SAVING.

A GREAT SAVING—We want you to remember first, last, and all the time, that in buying MIRACLE Exhibit "A" Outfit you cut out the enormous expense of iron pallets that follow the purchase of most all other machines on the market. This expense for iron pallets with other machines runs all the way from \$500 to \$1,500. With the MIRACLE Outfit all sizes of Blocks are carried away on the same size wooden pallet made by nailing together pieces of 2x6 and 2x8, 28 inches in length with two strips 2x2, 13 inches in length. These pallets are light and easy to handle, project far enough out from the block so that the blocks are not damaged in handling while green, and the expense of making them reduces the cost of equipment to the minimum.



# MIRACLE BLOCKS.

Made on Exhibit "A" Outfit—12-inch Base.

ON THESE TWO PAGES WE SHOW 69 OF THE VARIOUS BLOCKS THAT EXHIBIT "A" WILL MAKE.



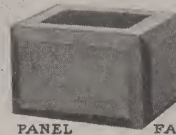
12" BLOCK  $\frac{1}{2}$  ROCK AND  $\frac{1}{2}$  PLAIN



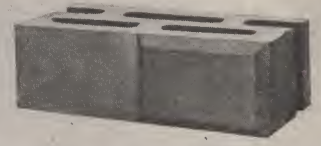
ROCK FACE



PLAIN FACE



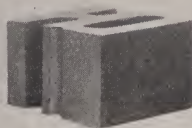
PANEL FACE



12" BLOCK  $\frac{1}{2}$  PANEL AND  $\frac{1}{2}$  PLAIN

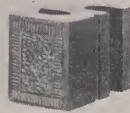


PANEL

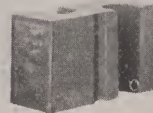


PLAIN

$\frac{1}{4}$  BLOCKS 6" LONG

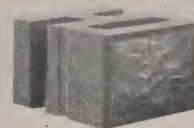


HAMMERED

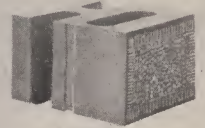


ROCK

12"  $\frac{1}{2}$  AND  $\frac{1}{4}$  BLOCKS



ROCK



HAMMERED

$\frac{1}{2}$  BLOCKS 12" LONG



PANEL

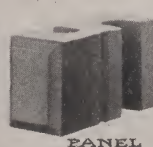


PLAIN

$\frac{3}{4}$  BLOCKS 18" LONG

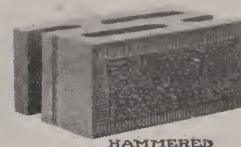


PLAIN



PANEL

12"  $\frac{3}{4}$  AND  $\frac{3}{4}$  BLOCKS



HAMMERED

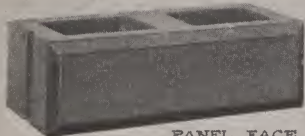


ROCK

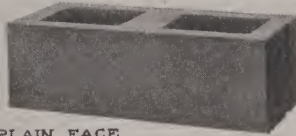
FULL SIZE BLOCKS 24" LONG



12" WATER TABLE BLOCKS



PANEL FACE

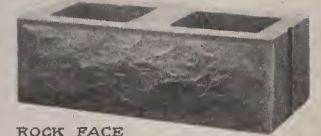


PLAIN FACE

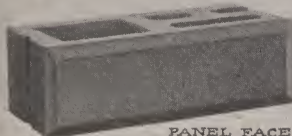
12" CHIMNEY BLOCKS, TWO FLUES



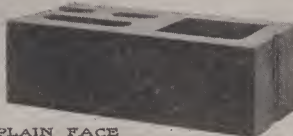
HAMMERED FACE



ROCK FACE



PANEL FACE

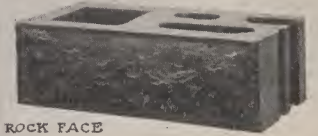


PLAIN FACE

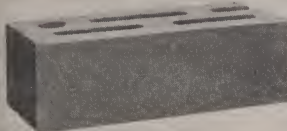
12" CHIMNEY BLOCKS, ONE FLUE



HAMMERED FACE



ROCK FACE

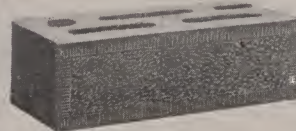


PLAIN FACE

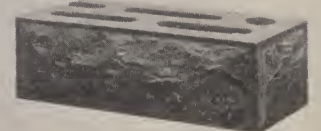


PANEL FACE

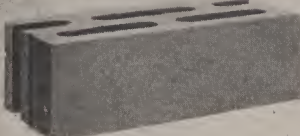
REGULAR 12" CORNER BLOCKS



HAMMERED FACE



ROCK FACE



PLAIN FACE

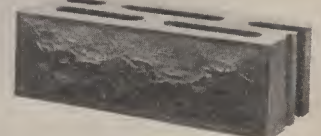


PANEL FACE

REGULAR 12" BLOCKS



HAMMERED FACE



ROCK FACE



The Most Complete

( See Price on Reverse Side of  
this Sheet.

EXHIB



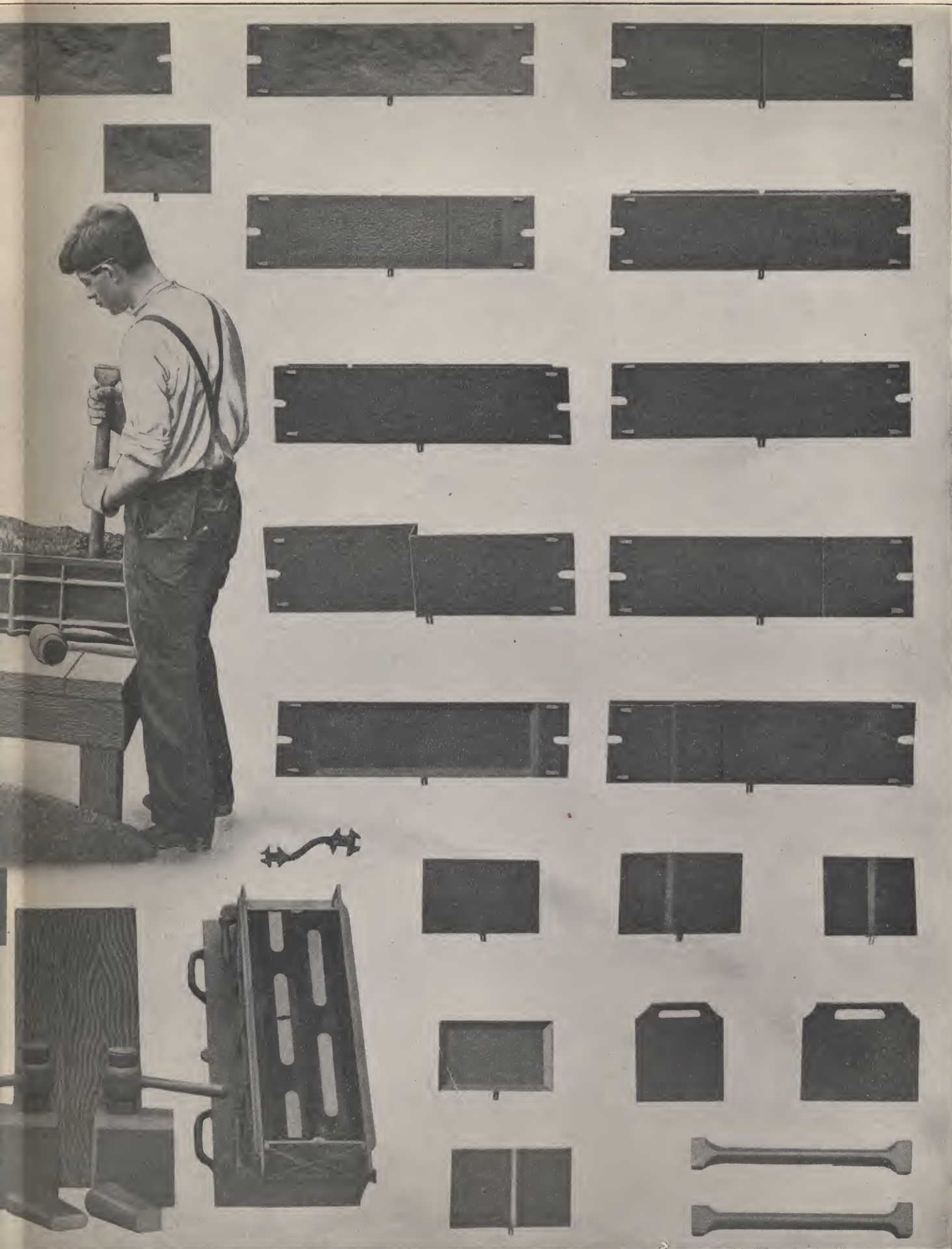
THE MACHINE THAT MAKES THE BLOCK, THAT



IBIT "A"

(See List of Parts on Reverse  
Side of this Sheet)

The Most Practical



T GETS THE BUSINESS AND SHOWS THE PROFITS.



# MIRACLE BLOCKS.

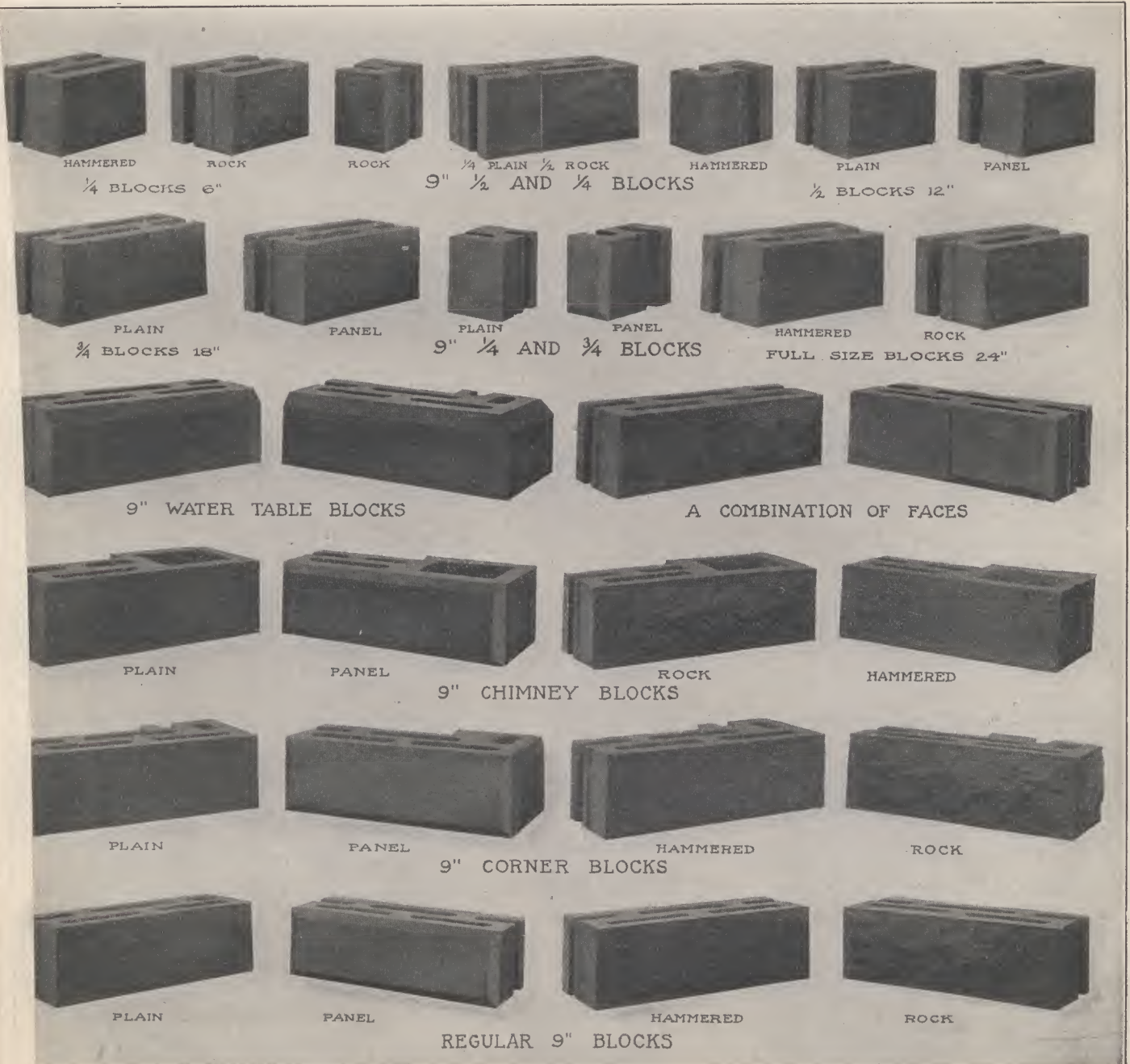
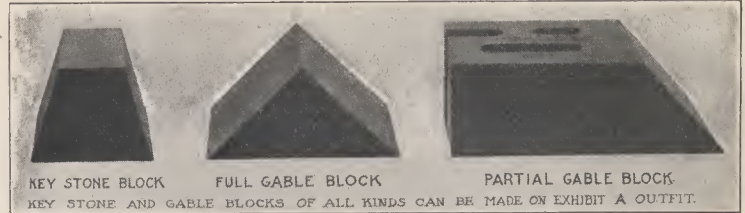
MADE ON AN EXHIBIT "A" OUTFIT.

NOTICE: On these two pages are illustrated 69 of the various faces, styles and sizes of Blocks Exhibit "A" will make. There are many more.

There is no other machine on the market that can produce such a large number of DIFFERENT blocks without an additional investment of hundreds of dollars for additional plates.

A FEW BLOCKS MADE ON A 9-INCH BASE.

# LOOK INSIDE



SIXTY-NINE OF THE BLOCKS FROM EXHIBIT "A" OUTFIT.

See back of this insert sheet for list of parts for Exhibit "A" Outfit.



Look inside this insert sheet for Exhibit "A" plates.



# LOOK INSIDE

No. 1.

KEY TO PLATES LISTED ON THE OTHER SIDE OF THIS INSERT SHEET.

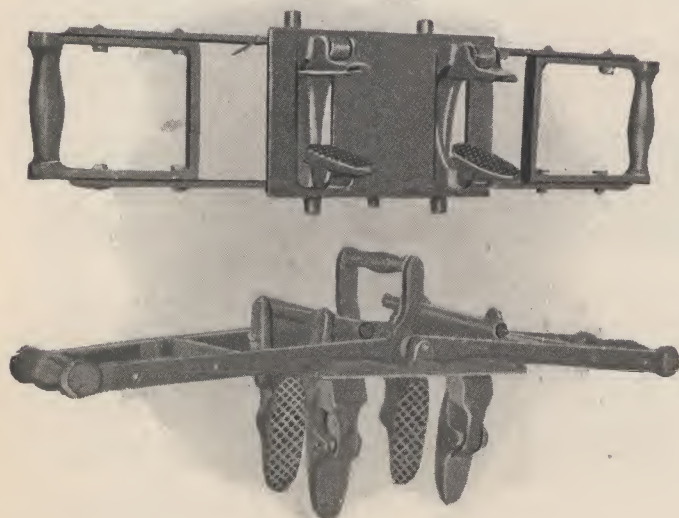
List of Parts for Miracle Hand Tamping Machine for Making 9 and 12-Inch Blocks.

- |   |   |
|---|---|
| 1 12-inch base and cores, complete.                                 | 1 panel face front plate for two half blocks.                           |
| 1 9-inch base and cores, complete.                                  | 1 panel face end plate.   |
| 2 chimney cores for either 9-inch or 12-inch.                       | 1 panel face front plate for $\frac{1}{4}$ and $\frac{3}{4}$ blocks.    |
| 2 plain face back plates for 9-inch and 12-inch.                    | 1 hammered face front plate.  |
| 1 plain face front plate for 9-inch and 12-inch.                    | 1 hammered face front plate for two half blocks.                        |
| 1 plain face front plate for two half blocks.                       | 1 hammered face end plate.  |
| 1 plain angle back plate for 9-inch corner.                         | 1 hammered face front plate for $\frac{1}{4}$ and $\frac{3}{4}$ blocks. |
| 1 plain angle back plate for 9-inch chimney.                        | 1 full division plate for 12-inch.                                      |
| 1 plain end for 9 and 12-inch corner.                               | 1 full division plate for 9-inch.                                       |
| 1 plain left end with rib for 12-inch.                              | 1 $\frac{1}{4}$ and $\frac{3}{4}$ division plate for 12-inch.           |
| 1 plain right end with rib for 12-inch.                             | 1 $\frac{1}{4}$ and $\frac{3}{4}$ division plate for 9-inch.            |
| 1 plain left end with rib for 9-inch.                               | 4 iron tampers for 9-inch and 12-inch.                                  |
| 1 plain right end with rib for 9-inch.                              | 3 cam fasteners for 12-inch.  |
| 1 plain face for $\frac{1}{4}$ and $\frac{3}{4}$ blocks.            | 2 cam fasteners for 9-inch.   |
| 1 medium rock face front plate.                                     | 2 wood mallets.   |
| 1 medium rock face front plate for 2 half blocks.                   | 1 sample wood pallet.   |
| 1 medium rock face end plate.                                       | 1 plain back for water table.   |
| 1 rock face front plate for $\frac{1}{4}$ and $\frac{3}{4}$ blocks. | 1 9-inch angle back for water table corner block.                       |
| 1 $\frac{1}{2}$ rock and $\frac{1}{2}$ plain face front plate.      | 1 9-inch right ribbed end water table.                                  |
| 1 $\frac{1}{2}$ panel and $\frac{1}{2}$ plain face front plate.     | 1 9-inch left ribbed end water table.                                   |
| 1 panel face front plate.   | 1 12-inch right ribbed end water table.                                 |
|   | 1 12-inch left ribbed end water table.                                  |
|   | 1 face plate for water table.   |
|   | 1 left end plate for water table.                                       |
|   | 1 right end plate for water table.                                      |
|   | 4 cam fasteners.  |

EXHIBIT "A" MACHINE **\$250.00**  
Complete as enumerated above

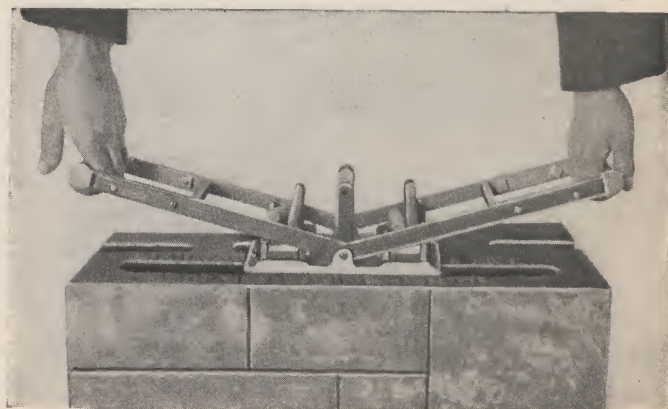
## MIRACLE BLOCK LIFTER

Price \$5 each; 6 for \$25.



A handy device for handling MIRACLE Blocks in the yard and on the job. No one operating a MIRACLE Mold can afford to be without a supply. It will pay for itself in a short time. No broken corners or pinched fingers. This simple device was gotten up by one of our customers and so arranged that it will pick up either a 9 or 12-inch block at either the top

An 8-inch Base and necessary end plates for making 8-inch Blocks will be substituted without Extra Charge for the 9-inch if desired.



or bottom. You will find it very useful in loading and unloading blocks, also in laying them in the wall. It will do away with having to slide the blocks on the wagon bed, which, we all know, is fatal to corners. On account of this lifter taking hold of the inner web of the block the edges of the blocks are never injured in handling.

PRICE \$5.00 EACH. SIX FOR \$25.00



**USE THIS BLANK WHEN ORDERING BLOCK MACHINE, EXHIBIT "A."**

## For Miracle Double Air Chamber Block Machine, EXHIBIT "A."

PARTS ENUMERATED BELOW.

MIRACLE PRESSED STONE Co.,  
MINNEAPOLIS, MINN.

Please ship me one Exhibit "A" Machine for \$250, f. o. b. Minneapolis, Minn. I enclose herewith (check) (draft) (money order) for \$50.00.

Name.....

Date..... 190..... Town.....

Ship Via..... R. R. State.....

It is understood upon receipt of this order, you will forward me a license for the right to manufacture Miracle Double Air Space Blocks in

TOWN

STATE

I, in turn, agree to sign one form of this license, and return for your files.

Five per cent. discount where the entire amount accompanies the order.

SIGN HERE.

### LIST OF PARTS.

1 12-inch base.  
1 9-inch base.  
6 regular cores for 12-inch.  
1  $\frac{1}{4}$  core for making  $\frac{1}{4}$  and  $\frac{3}{4}$  blocks.  
1 filler for divided 9-inch core.  
6 regular cores for 9-inch.  
2 extra cores for 9-inch corners.  
2 chimney cores for either 9 or 12-inch.  
1 filler for divided 12-inch core.  
13 bolts for cores.  
2 plain face back plates for 9 and 12-inch.  
1 plain face front plate for 9 and 12-inch.  
1 plain face front plate for two half blocks.  
1 plain face for  $\frac{1}{4}$  and  $\frac{3}{4}$  blocks.  
1 plain angle back plate for 9-inch corner.  
1 plain angle back plate for 9-inch chimney  
1 plain end for 9 and 12-inch corner.  
1 plain left end with rib for 12-inch.

1 plain right end with rib for 12-inch.  
1 plain left end with rib for 9-inch.  
1 plain right end with rib for 9-inch.  
1 med. rock front plate.  
1 med. rock face front plate for two half blocks.  
1 med. rock face end plate.  
1 rock face front plate for  $\frac{1}{4}$  and  $\frac{3}{4}$  blocks.  
1  $\frac{1}{2}$  rock and  $\frac{1}{2}$  plain face front plate.  
1  $\frac{1}{2}$  panel and  $\frac{1}{2}$  plain face front plate.  
1 panel face front plate.  
1 panel face front plate for two half blocks.  
1 panel face end plate.  
1 panel face front plate for  $\frac{1}{4}$  and  $\frac{3}{4}$  blocks.  
1 ham. face front plate.  
1 ham. face front plate for two half blocks.  
1 ham. face end plate.  
1 ham. face front plate for  $\frac{1}{4}$  and  $\frac{3}{4}$  blocks.  
1 full division plate for 12-inch.

1 full division plate for 9-inch.  
1  $\frac{1}{4}$  and  $\frac{3}{4}$  division plate for 12-inch.  
1  $\frac{1}{4}$  and  $\frac{3}{4}$  division plate for 9-inch  
4 iron tampers for 9 and 12-inch.  
3 cam fasteners for 12-inch.  
2 cam fasteners for 9-inch.  
2 wood mallets.  
1 sample wood pallet.  
1 plain back for Water Table.  
1 9-inch angle back for W. T. Corner Blocks.  
1 9-inch right ribbed end W. T.  
1 9-inch left ribbed end W. T.  
1 12-inch right ribbed end W. T.  
1 12-inch left ribbed end W. T.  
1 face plate for W. T.  
1 left end plate for W. T.  
1 right end plate for W. T.  
4 cam fasteners.

(SEE GUARANTEE BOND ON OTHER SIDE.)

**WE HANDLE A COMPLETE LINE.**



# Miracle Guarantee Bond.

**To Whom it May Concern:** We, the Miracle Pressed Stone Company, incorporated under the laws of South Dakota, doing business lawfully in the City of Minneapolis, and each member thereof, hereby agree, as a company and as individuals, that if in any case Miracle Machines, Molds or other manufactures are found not to be as represented by us, or will not do the work claimed for them, they can be returned at any time within ninety (90) days of the date of purchase, and if in good condition, less reasonable wear, we will immediately refund the price paid for same. Prosperity for us depends on the success of Miracle customers and the prosperity of the concrete industry, hence our established policy of doing everything in our power to help them succeed.

We further guarantee equally careful and prompt attention to all customers, whether their orders be large or small.

SIGNED: **Miracle Pressed Stone Co.**

*By the President,*

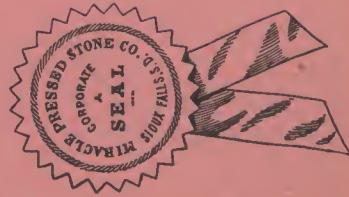
*O.W. Miracle*

ATTEST:

*By the Sec'y and Treas.,*

*Tomuraeh*

*Minneapolis, July 1st.*





**USE THIS BLANK WHEN ORDERING BLOCK MACHINE, EXHIBIT "M. A."**

## **For Miracle Special Double Air Chamber Block Machine, EXHIBIT "M. A."**

PARTS ENUMERATED BELOW.

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Please ship me one Special Exhibit "M. A." Machine for \$100, f. o. b.  
Minneapolis, Minn. I enclose herewith (check) (draft) (money order) for \$25.00.

Name .....

Date ..... 190 ..... Town .....

Ship Via ..... R. R. State .....

It is understood upon receipt of this order, you will forward me a license for the right  
to manufacture Miracle Double Air Space Blocks in

TOWN

STATE

I, in turn, agree to sign one form of this license, and return for your files.

Five per cent. discount where the entire amount accompanies the order.

SIGN HERE.

### **LIST OF PARTS.**

1 9 inch base, complete with all cores.  
1 plain face back plate.  
1 plain angle back plate for 9-inch corner.  
1 plain left end with rib for 9-inch.  
1, plain right end with rib for 9 inch.  
1 plain angle back plate for chimney block.  
1 12-inch plain ribbed end plate.  
1 chimney core.  
1 medium rock face front plate.

1 medium rock face front plate for two half blocks.  
1 medium rock face end plate.  
1 medium rock face front plate for  $\frac{1}{4}$  and  $\frac{3}{4}$  blocks.  
1 full division plate for 9-inch blocks.  
1  $\frac{1}{4}$  and  $\frac{3}{4}$  division plates for 9 inch.  
2 iron tampers for 9-inch.  
1 cam fastener for 12-inch.  
2 cam fasteners for 9-inch.  
2 wood mallets.

1 sample wood pallet.

A machine for making a block 12 inches wide will be substituted for a 9-inch if preferred.

(SEE GUARANTEE BOND ON OTHER SIDE.)

**WE HANDLE A COMPLETE LINE.**



# Miracle Guarantee Bond.

**To Whom it May Concern:** We, the Miracle Pressed Stone Company, incorporated under the laws of South Dakota, doing business lawfully in the City of Minneapolis, and each member thereof, hereby agree, as a company and as individuals, that if in any case Miracle Machines, Molds or other manufactures are found not to be as represented by us, or will not do the work claimed for them, they can be returned at any time within ninety (90) days of the date of purchase, and if in good condition, less reasonable wear, we will immediately refund the price paid for same. Prosperity for us depends on the success of Miracle customers and the prosperity of the concrete industry, hence our established policy of doing everything in our power to help them succeed.

We further guarantee equally careful and prompt attention to all customers, whether their orders be large or small.

SIGNED: **Miracle Pressed Stone Co.,**

*By the President,*

*O. W. Miracle*

ATTEST:

*By the Sec'y and Treas.,*

*Tomuraeh*

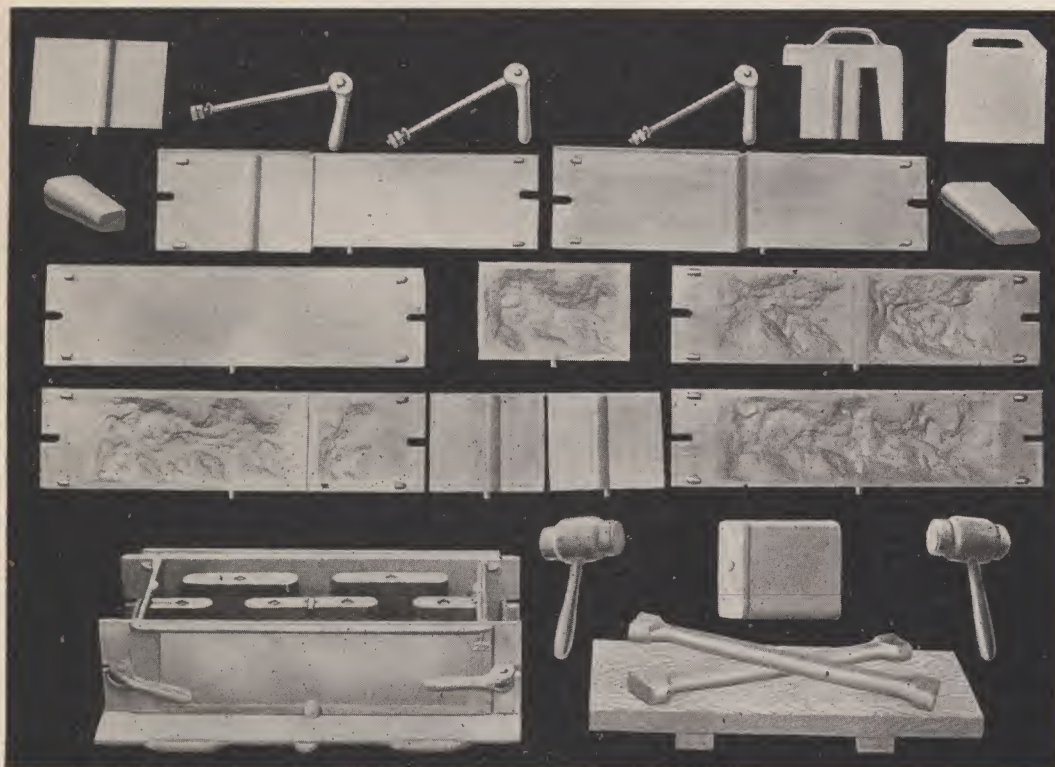
*Minneapolis, July 1st.*





# MIRACLE EXHIBIT "M. A." OUTFIT

## FOR MANUFACTURING THE MIRACLE DOUBLE AIR SPACE BLOCK



THIS OUTFIT  
COSTS ONLY

**\$100.00**

and is intended for the private use of the man who wishes to build his own home, and also for the man who wishes to begin the business upon small capital.

We very often have calls from people who desire to manufacture the Miracle Double Air Space Block, for a machine that does not cost as much as the Exhibit "A." While it is advisable, if possible, to install the complete machine at the start, one can take up the business on a smaller scale by making a few sizes and designs of stone, then add to the equipment later on out of the profits earned. There are many people that can afford to start on a small scale who are good, substantial, reliable men, that, if given an opportunity, can build up a very profitable business.

For this reason we split up our Exhibit "A." machine and make a price of \$100.00 on a partial outfit that will make Rock Face stone 8 inches high, 9 inches wide and 6, 12, 18 and 24 inches long, with corner blocks, porch piers and chimney blocks and agree to furnish, at any time inside of one year, the rest of the Exhibit "A." for an additional \$150.00, which makes the complete outfit cost no more than it does to buy it all at once. This outfit, called the "M. A.," consists of the following parts:

### PARTS OF "M. A." MACHINE

- 1 9-inch base, complete with all cores.
- 1 plain face back plate.
- 1 plain angle back plate for 9-inch corner.
- 1 plain left end with rib for 9-inch.
- 1 plain right end with rib for 9-inch.
- 1 plain angle back plate for chimney block.
- 1 12-inch plain ribbed end plate.
- 1 Chimney core.
- 1 medium rock face front plate.
- 1 medium rock face front plate for two half blocks.
- 1 medium rock face end plate.
- 1 medium rock face front plate for 1-4 and 3-4 blocks.
- 1 full division plate for 9-inch blocks.
- 1 1-4 and 3-4 division plates for 9-inch.
- 2 iron tampers for 9-inch.
- 1 cam fastener for 12-inch.
- 2 cam fasteners for 9-inch.
- 2 wood mallets.
- 1 sample wood pallet.

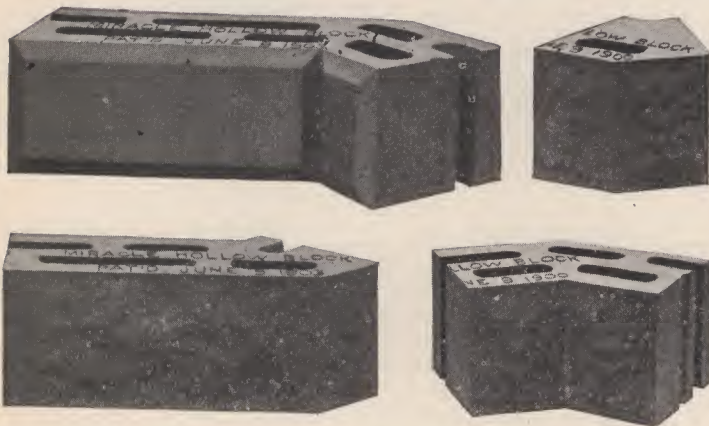
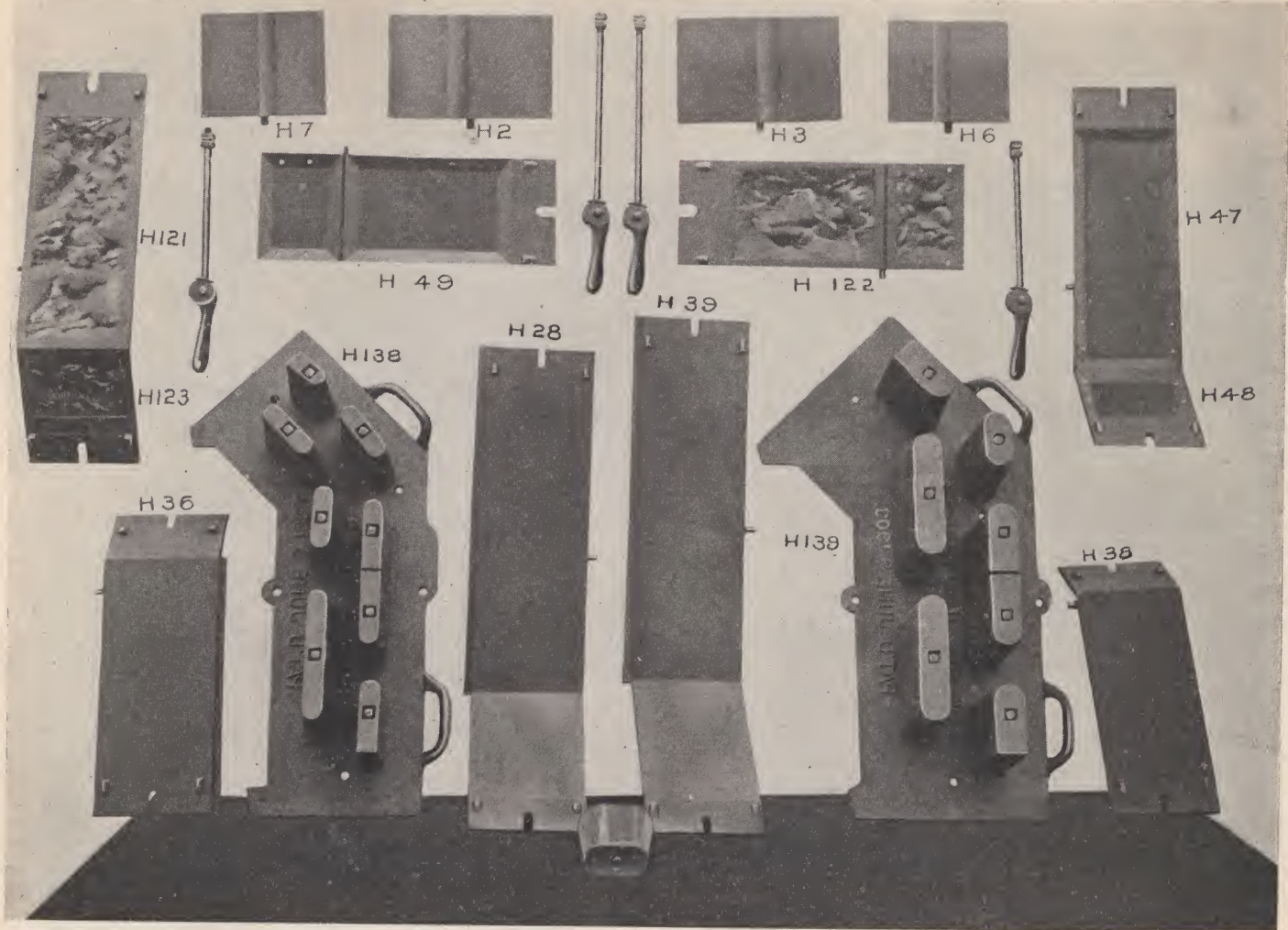
If another style of face plates is preferred to the Rock Face, any style furnished with our Exhibit "A." will be substituted without extra charge. The "M. A." will also be furnished in either 8, 9, or 12 inch widths.

Silo attachments for the "M. A." machine, for one radius, will be furnished for \$23.00.

SEE YELLOW ORDER BLANK.



## EXHIBIT "B."



Miracle Bay Window Blocks, made on Exhibit "B."

### OCTAGON OR BAY WINDOW OUTFIT.

It seems that the average American cannot build a house without a Bay Window. So many machine people furnish extra attachments adjustable to the regular Molds to make Blocks for Bay Windows. We believe the only way to make good, true Bay Window Blocks, which will break joints properly, is to have an entirely separate set of Molds. We furnish molds for making exterior and interior angles in both 9-inch and 12-inch Blocks, in any or all faces for either 45-degree or 30-degree angles, which ever you may designate. While we list this outfit complete, if you want only one size or thickness, and only one set of face plates, we will furnish them. Hammered or plain face molds can also be furnished with this outfit. They will be furnished instead of the above faces at the same price, if called for. You will find these Molds will make true and

perfect Blocks, and that you will be able to break joints at the proper place.

List of parts for MIRACLE Bay Window or Octagon Hand Tamping Machine for making 45-degree exterior and interior angles. A 30-degree Angle Machine can be substituted at the same price.

- 1 12-inch iron base and cores, complete.
- 1 9-inch iron base and cores, complete.
- 1 rock face front plate, 18-inch.
- 1 rock face front plate, 6-inch.
- 1 rock face front plate for one 6-inch and one 12-inch.
- 1 panel face front plate, 18-inch.
- 1 panel face front plate, 6-inch.
- 1 panel face front plate for one 6-inch and one 12-inch.
- 1 plain back plate for 9-inch interior angle.
- 1 plain back plate for 12-inch interior angle.
- 1 plain back plate for 9-inch exterior angle.
- 1 plain back plate for 12-inch exterior angle.
- 1 plain left end plate with rib, 12-inch.
- 1 plain right end plate with rib, 12-inch.
- 1 plain left end plate with rib, 9-inch.
- 1 plain right end plate with rib, 9-inch.
- 2 cam fasteners, 9-inch.
- 2 cam fasteners, 12-inch.

Shipping weight, boxed, 560 pounds.

PRICE COMPLETE, \$80.00.

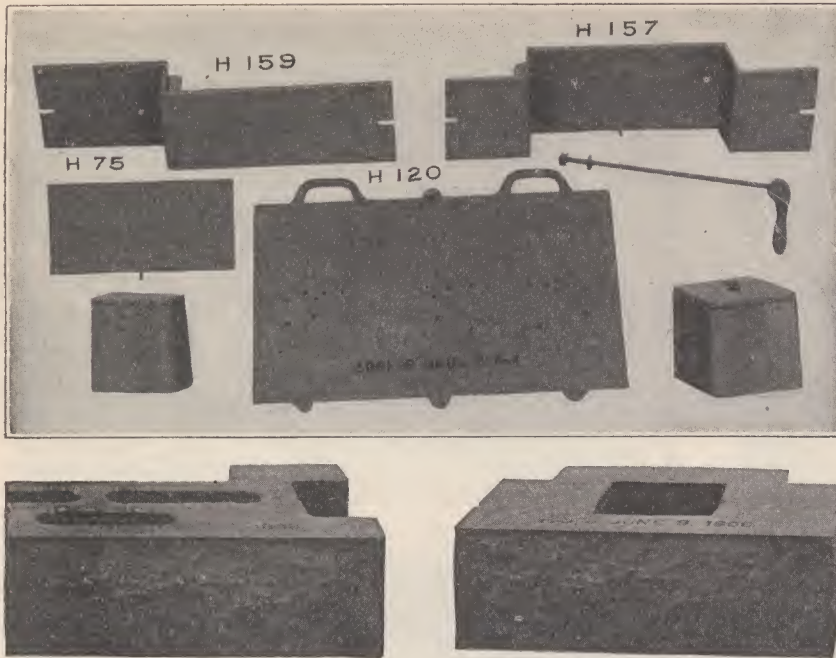
A Split Octagon Outfit can also be furnished with one base and cores, either the 9-inch or 12-inch, with one set of face plates, either plain, pannel, rock, or hammered, with end plates. Price, \$40.00. Extra face plates in complete sets, \$20.00 per set.

We also have the Water Table Attachments for the Exhibit "B" machine. Price complete, \$23.00.



# EXHIBIT "A" ATTACHMENTS.

## CHICAGO CHIMNEY OUTFIT.



Chicago Chimney Outfit, Showing the Two Styles of Chimney Block, with Extra Thick Walls.

Price, Complete.....\$32.00

Some city ordinances (Chicago's, for instance) rule that the walls of all chimneys must be at least 4 inches thick. That our customers located in such cities may be enabled to keep within the law, we designed our "Chicago Chimney" outfit. It will be noticed that one opening for flue is in the center of the block and one opening, half size, is in the end of the block. In breaking joints the half openings form a complete flue directly over the opening in the block below it. The parts belonging to this outfit are as follows:

1 base and cores.....	H-120
1 end plate, 16-inch.....	H-60
2 end plates, 12-inch.....	H-61
1 back plate for center flue.....	H-57
1 back plate for end flue.....	H-59
Price, complete.....	\$32.00

### 9-INCH END PLATES.

In making corner blocks for a 9-inch wall, the usual custom is to use a 12-inch return end plate so that the corners will fit. This is necessary, because the 9-inch block is not one-half as wide as it is long, as is the 12-inch block, but, occasionally regular 9-inch end plates are wanted as when making a retaining wall. These end plates are furnished as follows:

H-158 9-inch rock face end plate.....	\$2.50
H-89 9-inch beveled face end plate.....	2.50
H-151 9-inch hammered face end plate.....	2.50
H-79 9-inch plain face end plate.....	2.00

### REVEAL END PLATES.

Reveal end plates are used for making blocks, especially for receiving sash for window weights, etc.

H-163 9-inch Reveal end plates.....	\$2.50
H-165 12-inch Reveal end plates.....	3.00

An illustration of block made from a Reveal end plate is shown on page 17.

### EXTRA PLATES FOR MAKING BLOCKS 10 INCHES HIGH.

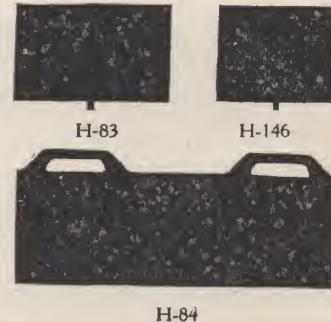
For making blocks 10 inches high, one or more additional face plates, one additional back plate, two end plates, and one set of special cores are necessary. We list below, however, the entire outfit for making blocks 10 inches high.

Special cores, 10 inches high, complete set.....	\$16.00
Plain face plate.....	E-2 6.00
Plain face for 1/2 block.....	E-3 7.00
Plain face for 3/4 and 3/8 blocks.....	E-4 7.00
Plain face end plate.....	E-10 3.00
Hammered face plate.....	E-7 8.00
Hammered face for 1/2 block.....	E-8 9.00
Hammered face for 3/4 and 3/8 blocks.....	E-20 9.00
Hammered face end plate.....	E-13 4.00
Rock face plate.....	E-21 8.00
Rock face for 1/2 block.....	E-22 9.00
Rock face for 3/4 and 3/8 blocks.....	E-23 4.00
Rock face end plate.....	E-24 4.00
Panel face plate.....	E-25 8.00

Panel face for 1/2 block.....	E-26 9.00
Panel face for 3/4 and 3/8 blocks.....	E-27 9.00
Panel face end plate.....	E-28 4.00
Right ribbed 12-inch end plate.....	E-30 3.00
Left ribbed 12-inch end plate.....	E-31 3.00
Right ribbed 9-inch end plate.....	E-32 3.00
Left ribbed 9-inch end plate.....	E-33 3.00
Plain back plate.....	E-35 7.00
Return corner back for 9-inch block.....	E-36 8.00
Chimney back plate.....	E-37 8.00
12-inch full division plate.....	E-38 2.00
9-inch full division plate.....	E-39 1.75
12-inch 3/4 and 3/8 division plate.....	E-40 2.25
9-inch 3/4 and 3/8 division plate.....	E-41 2.00

## VENEER AND PARTITION BLOCKS.

Price, Complete, \$11.50.



### PLATES FOR MAKING VENEER AND PARTITION BLOCKS.

Two plates, each \$2.50.....	H-83 5.00
One plate.....	H-84 2.50
Two plates, each \$2.00.....	H-146 4.00
Price, complete.....	\$11.50

To make a 6-inch Veneer or Partition Block remove the cores on the 12-inch base and put on the 9-inch Block cores. Use for end plates two of H-83. These end plates are the same as regular plain end plates except they are slotted in the center to admit the lengthwise division plate H-84. After thoroughly tamping the block, remove the division plate and turn the block over the same as usual. In making a 4 1/2-inch Partition Block, we recommend that you remove all cores from 9-inch base. Use two of 9-inch slotted end plates, No. H-146, and one lengthwise division plate, No. H-84.

H-83, slotted end plate for 12-inch mold makes Veneer or Partition Block 6 inches thick.

H-84, lengthwise division plate for Veneer or Partition Blocks.

H-146, slotted end plate for 9-inch mold makes Veneer or Partition Blocks 4 1/2 inches thick.

### SPECIAL SIZE WALLS.

A variety of walls getting away from the so-called monotonous is sometimes wanted. For this reason we made our special molds. Some want to build walls with the upper half of the regular 8-inch blocks and the lower half of higher, bigger stones. It was, therefore, necessary for us to make molds for building walls 8, 10, 14 and 16 inches thick, and for making blocks 10 and 12 inches high.

### FOR MAKING WALLS OF EVERY THICKNESS.

Additional bases and both right and left ribbed end plates are required, unless the regular bases are ordered and drilled to suit, in which case the end plates only are required.

Base for 8-inch block without cores.....	H-45 9.00
Base for 10-inch block without cores.....	H-46 9.00
Base for 14-inch block without cores.....	H-120 14.00
Base for 16-inch block without cores.....	H-120 14.00
Regular cores 8 inches high for above 8-inch and 10-inch bases, per set.....	11.00
Regular extra large cores 8 inches high for above 14 and 16-inch bases, per set.....	16.00
Right ribbed end plate, 8 inches wide.....	H-148 2.00
Left ribbed end plate, 8 inches wide.....	H-149 2.00
Right ribbed end plate, 10 inches wide.....	H-80 2.25
Left ribbed end plate, 10 inches wide.....	H-80X 2.25
Right ribbed end plate, 14 inches wide.....	H-152 2.75
Left ribbed end plate, 14 inches wide.....	H-153 2.75
Right ribbed end plate, 16 inches wide.....	H-61 3.00
Left ribbed end plate, 16 inches wide.....	H-60 3.00
Angle back for 8-inch return corner.....	H-147 6.00
Angle back for 8-inch chimney block.....	H-150 6.00
Angle back for 8-inch water table.....	H-170 6.00
Right ribbed end plate W. T., 8 inches.....	H-171 3.00
Left ribbed end plate W. T., 8 inches.....	H-172 3.00
Division plate, 3/4 and 3/8, 8 inches.....	H-183 1.25
Angle back for 10-inch return corner.....	H-81 6.00
Angle back for 10-inch chimney block.....	H-166 6.00
Angle back for 10-inch W. T.....	H-167 6.00
Right ribbed end plate W. T., 10 inches.....	H-168 3.25
Left ribbed end plate W. T., 10 inches.....	H-169 3.25
Division plate, 3/4 and 3/8, 10 inches.....	H-238 1.25
Angle back for 14-inch return corner.....	H-15X 6.00
Angle back for 14-inch W. T.....	H-186 6.00
Right ribbed end plate for W. T., 14 inches.....	H-187 3.50
Left ribbed end plate for W. T., 14 inches.....	H-188 3.50
Division plate, 3/4 and 3/8, 14 inches.....	H-239 1.50
Angle back for 16-inch W. T.....	H-189 6.00
Right ribbed end for 16-inch W. T.....	H-190 4.00
Left ribbed end for 16-inch W. T.....	H-191 4.00
Division plate, 3/4 and 3/8, 16 inches.....	H-240 1.75

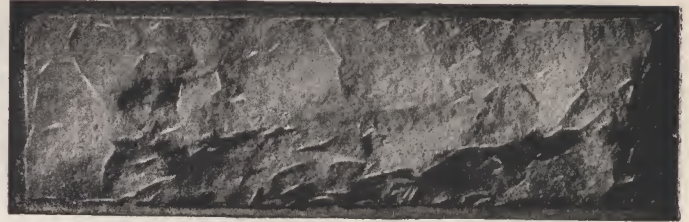


# EXHIBIT "A" ATTACHMENTS—Continued.

SPECIAL ROCK FACES. PRICE EACH, \$7.00.



Face Plate H-193



Face Plate H-195



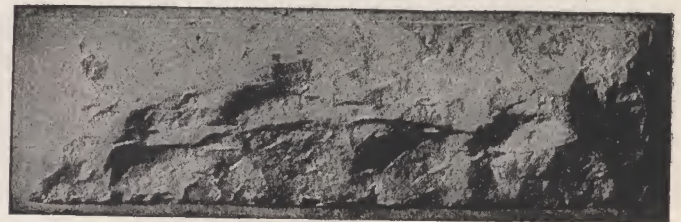
Face Plate H-194



Face Plate H-192



Face Plate H-197



Face Plate H-196

A combination of several of these new Rock Faces placed indiscriminately in the wall makes a building of the most STRIKING and PLEASING appearance.

The Miracle Special Rock Faces were designed to give variety to cement concrete construction. The best results can be obtained by placing, indiscriminately in the wall, stones of five or six different rock face designs. We advise all Miracle operators to invest a few extra dollars in several additional rock face plates, and mix them up in making stones. Let the blocks

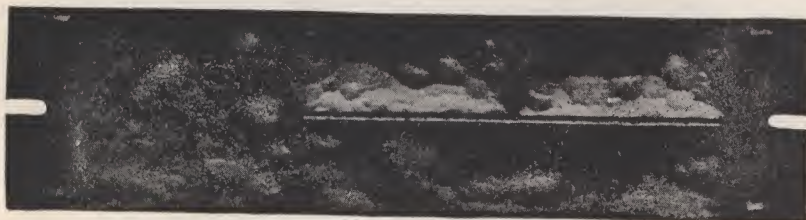
get well mixed up in the yard, and when they go into a building a wall equal, if not superior, in appearance and durability to any wall of the best cut stone is the result.

These face plates are made at great expense and care. The sharpest and hardest natural stone is chipped, and patterns very carefully taken, producing perfect natural faces with sharp, clean cut lines. Plates similar to each of above designs furnished for making quarter and three-quarter lengths, also half-lengths, for \$7.50 each. End plates, \$3.50 each.

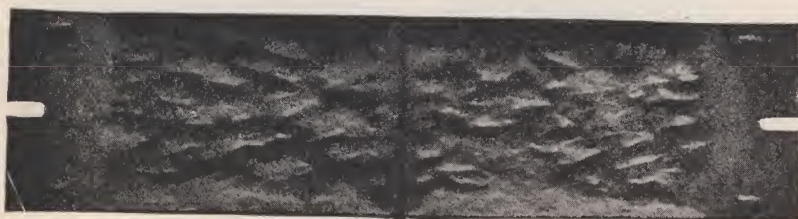
## BROKEN ASHLER FACE PLATES.

These plates are made to give the impression of five distinct rocks, each being separated by false pointing, and do away with objections sometimes offered to Concrete Blocks—the monotonous effect made by using one face in the wall.

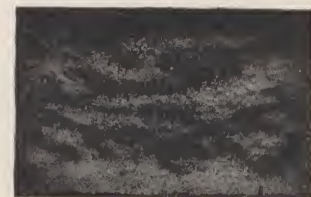
See illustration.



H-140



H-96

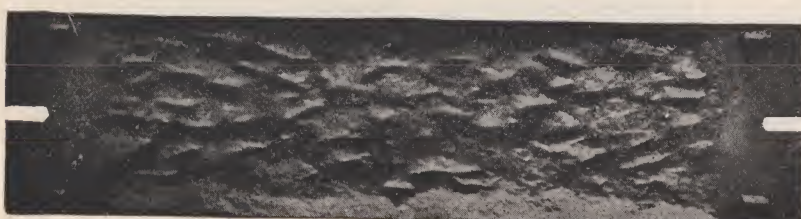


H-95

We also have a series of rock face plates made without any marginal edge, which will work in very nicely with the broken ashler face. See Block Exhibits Nos. 1 and 3 on pages 38 and 39. We give list of plates and numbers below, any one of which may be bought separately if desired:

Shipping weight, 118 pounds.

Broken Ashler . . . . .	H-140	\$8.00
Rock Face without margin front . . . . .	H-94	6.00
Rock Face without margin end . . . . .	H-95	3.00
Rock Face without margin, one-half block . . . . .	H-96	7.00
Broken Ashler with recess for pointing	H-177	8.00
Price complete, first four plates only . . . . .		\$24.00



H-94



## EXHIBIT "A" ATTACHMENTS—Continued.

### WREATH BELT COURSE OUTFIT.

This course gives a very pleasing effect and will beautify any building. See pictures of Block Exhibits Nos. 1, 3 and 4 on pages 38 and 39.

This effect in a cut stone would cost in the neighborhood of \$2.00 a foot, and then would not be nearly as perfect as the MIRACLE product.

To make our Wreath Belt Course the following plates are necessary:

Frieze front plate....	H-70	\$6.00
Frieze front plate, one-half block.....	H-71	7.00
Frieze end plate.....	H-72	3.00

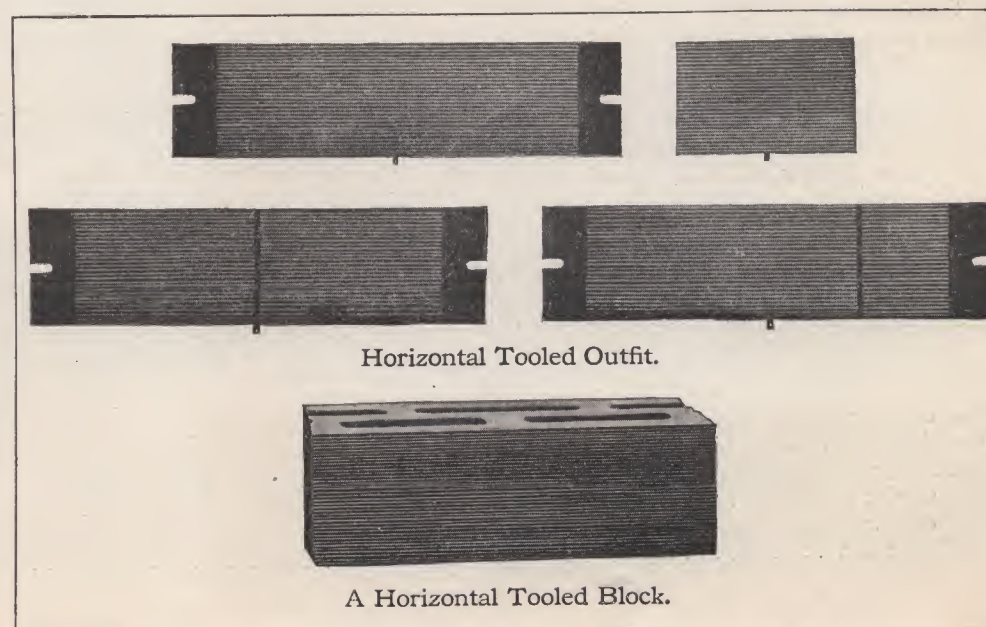
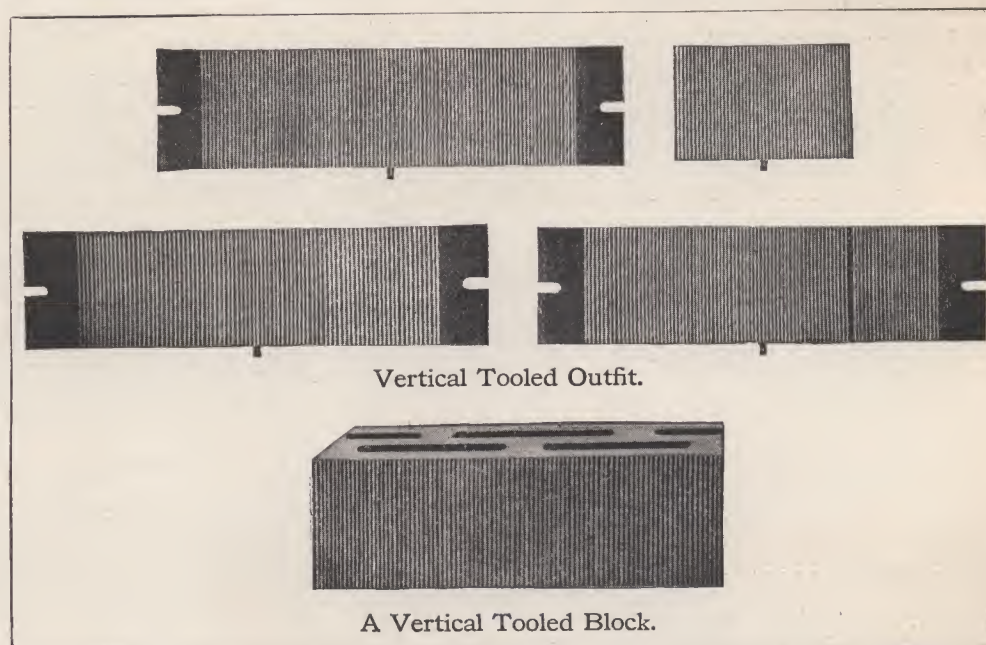
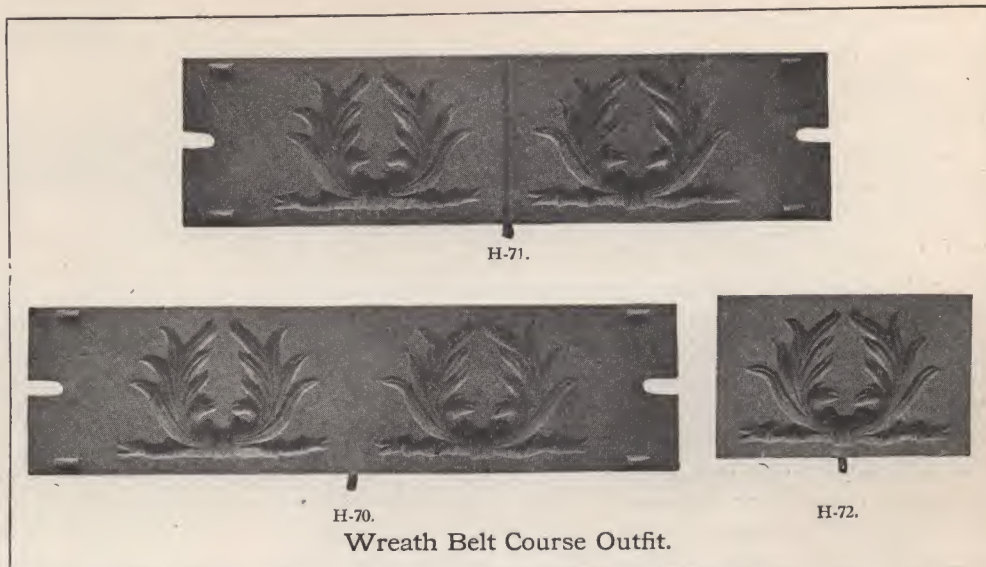
Price complete.....\$16.00

### VERTICAL AND HORIZONTAL TOOLED FACES.

To give further variety in style of faces, we have designed our Vertical and Horizontal Tooled Faces. They are proving very popular, and blocks produced with these plates give a building a thoroughly modern appearance.

The plates necessary are as follows:

Vertical tooled front plate .....	H-101	\$6.50
Vertical tooled front plate, 1/2 blocks..	H-102	7.50
Vertical tooled front plate, 1/4 and 3/4 blocks .....	H-103	7.50
Vertical tooled end plates, 12-inch blocks .....	H-104	3.25
Horizontal tooled front plate .....	H-97	6.50
Horizontal tooled front plate, 1/2 blocks .....	H-98	7.50
Horizontal tooled front plate, 1/4 and 3/4 blocks...	H-99	7.50
Horizontal tooled end plate, 12-inch blocks.....	H-100	3.25





## HALF-HEIGHT BLOCKS.

### Exhibit "I."

The most attractive feature of half-height blocks is that it breaks the monotony of regular, equal-size blocks.

In making half-height or  $3\frac{3}{4}$ -inch blocks, the regular bases and backs are used, fillers being dropped over the cores. The special face plate, which is half rock and half hammered, is used. You can make either face you desire by changing the dowel pin; that is, if you desire to make a  $3\frac{3}{4}$ -inch rock face, the dowel pin should be put on the hammered face side, and to make the hammered face, reverse the dowel. The following plates are necessary to make the outfit complete:

Filler for 12-inch straight block . . . H-85	\$3.50
Filler for 12-inch corner block . . . H-86	3.50
Filler for 9-inch straight block . . . H-87	3.50
Filler for 9-inch corner block . . . H-88	3.50
Rock and hammered front face for 4-inch . . . . . H-90	6.00
Rock and hammered front face for 4-inch half . . . . . H-91	7.00
Rock and hammered face for 4-in. end H-92	3.00
Rock and hammered front face for $\frac{1}{4}$ and $\frac{3}{4}$ blocks, 4-inch . . . . . H-93	7.00

Price, complete . . . . . \$37.00

## EGG AND DART CORNICE OUTFIT.

Cornice Blocks, both 9 and 12 inches wide, also right and left hand Corner Blocks, can be made with these attachments. This makes a very pretty cornice effect, the block overhanging  $3\frac{5}{8}$  inches, giving a finished appearance to any building. See block exhibits Nos. 1 and 4, pages 38 and 39.

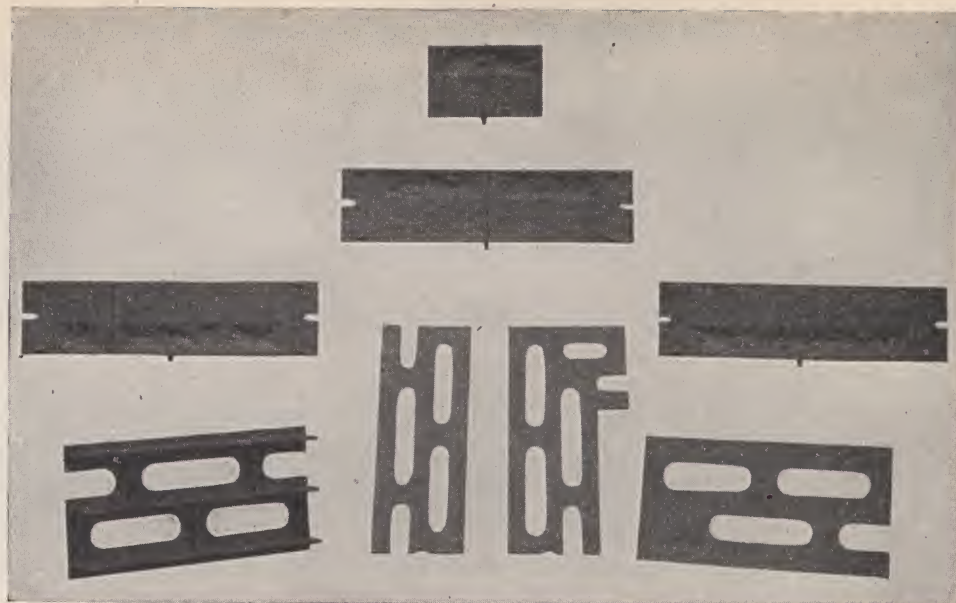
This outfit, having no cores, can be used by anyone making concrete blocks. It is not necessarily an outfit exclusively for the Miracle block maker.

Egg and Dart Cornice Outfit consists of the following plates:

One cornice plate, front . . . . . H-130	\$8.00
One right end cornice plate . . . H-131	4.00
One left end cornice plate . . . H-131X	4.00
One cornice back plate . . . . . H-132	6.00
One cornice plate, left ribbed, 12-inch end . . . . . H-133	3.00

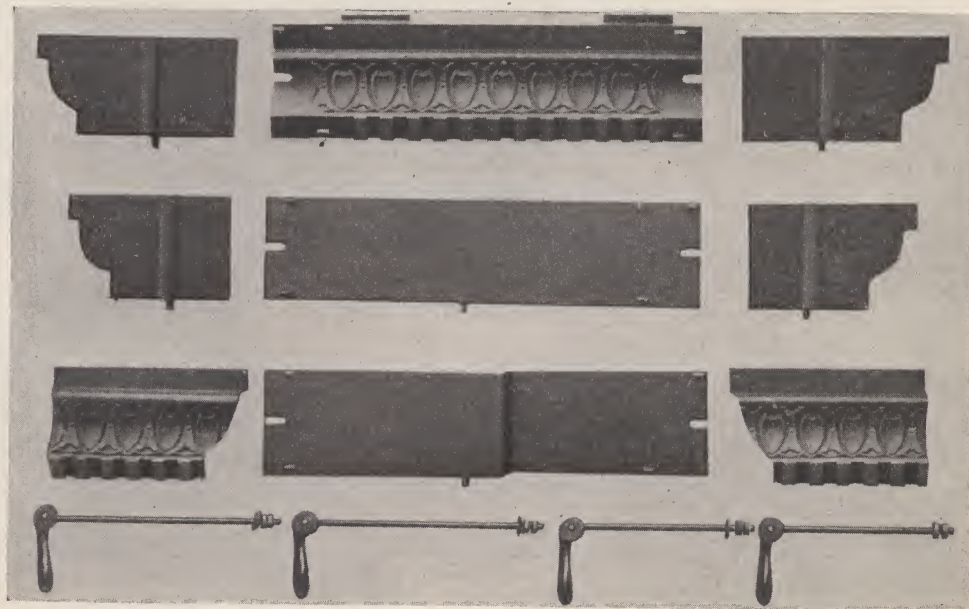
One cornice plate, right ribbed, 12-inch end . . . . . H-134	3.00
One cornice piece, left ribbed, 9-inch end . . . . . H-135	2.50
One cornice plate, right ribbed, 9-inch end . . . . . H-136	2.50
One cornice plate, angle back for 9-inch block . . . . . H-137	7.00
Four special cam fasteners, each 50 cents . . . . .	2.00

Price, complete . . . . . \$42.00

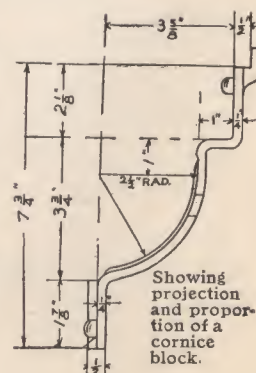


Outfit for Making Half-Height Blocks.

The fillers shown above can be used with the regular plain face plates to make half-height blocks with smooth face.



Egg and Dart Cornice Outfit.





Two Typical Buildings Showing Fancy Blocks, Half-Height Blocks, Wreath Belt Course, and Egg-and-Dart Cornice.



A Modern Flat Building, Allegheny, Pa.

The artistic effect secured in building, which relieves the monotony of one style of block, by the use of the special molds shown on the opposite page, is well illustrated by the two buildings on this page. In view of the fact that it takes no more material and practically no more labor to secure a pleasing artistic effect, the wisdom of having these molds in your equipment must be apparent. The difference between a handsome and artistic effect and an ugly building is a mere trifle in cost, but a big item in its desirability and money value.



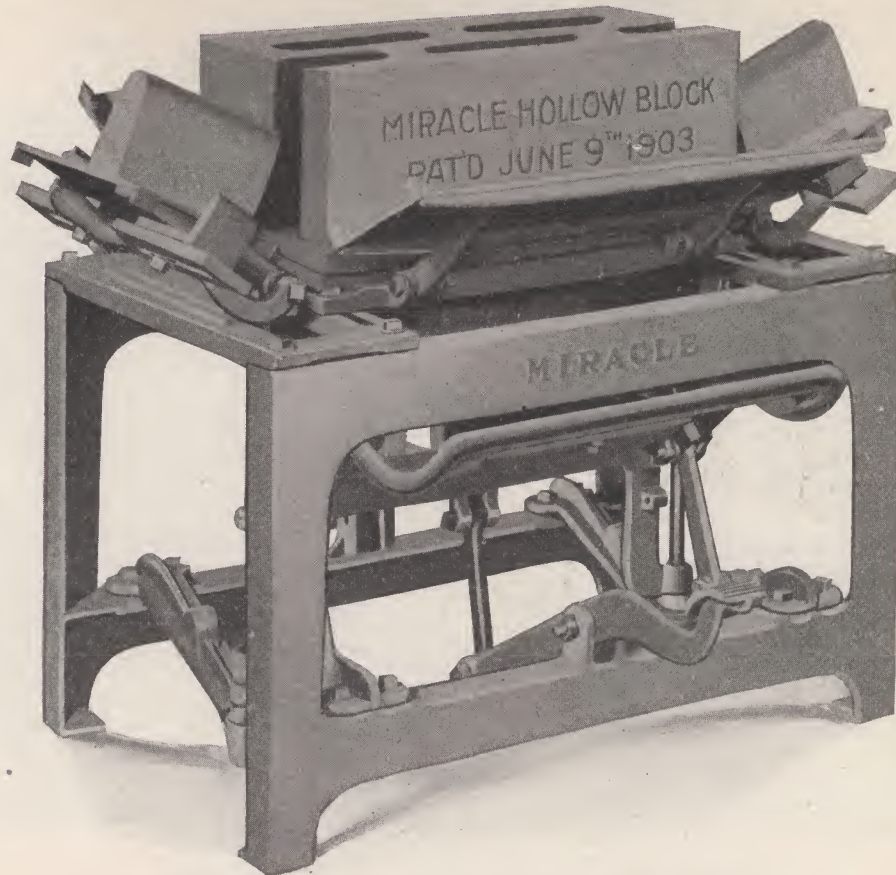
Bank Building, Lankin, N. D.



# MIRACLE DROP CORE MODEL

It makes the  
famous  
Miracle  
Double Staggered  
Air Space  
Block

It is the  
only machine  
that can



It is based  
upon  
the Simplest  
Principle

Nothing to  
wear out

Nothing to  
get out of  
order

FINISHED PRODUCT READY TO CARRY AWAY

## INSTANTLY ADJUSTABLE

This machine is adjustable for making blocks any width up to 16 inches and requires for extra widths only extra end plates of the width desired. Adjustable any length up to 32 inches

## LIST OF PARTS

- |  |   |
|--|---|
| 1 Stand complete, including Core Beam, Bed for face plates, Lever, Latch, Etc., complete in all details. | 1 Rock Face End Plate 12-inch for 9-inch Corner Blocks.             |
| 1 9-inch Core Plate, including all cores.  | 1 Half Division Plate, for 9-inch Block.                            |
| 1 Chimney Core.  | 1 $\frac{1}{4}$ and $\frac{3}{4}$ Division Plate, for 9-inch Block. |
| 1 9-inch Right Ribbed End Plate with core.   | 2 Iron Tampers.   |
| 1 9-inch Left Ribbed End Plate with core.  | 1 Hopper.   |
| 1 Plain back plate   | 1 Screed  |
| 1 Filler for 9 inch return corner block  | 1 Plain Back Plate, for water table                                 |
| 1 Filler for 9 inch chimney block  | 1 9-inch Filler, for water table corner.                            |
| 1 Plain Face Plate.  | 1 9-inch Right Ribbed End Water Table.                              |
| 1 Plain Face Plate for Half Blocks.  | 1 9-inch Left Ribbed End Water Table.                               |
| 1 Plain Face Plate for $\frac{1}{4}$ and $\frac{3}{4}$ Blocks.   | 1 Face Plate for water table.                                       |
| 1 Plain Face End Plate 12-inch for 9-inch Corner Blocks.   | 1 Right End Plate for water table.                                  |
| 1 Rock Face Plate with margin.   | 1 Left End Plate for water table.                                   |
| 1 Rock Face Plate with margin, for Half Blocks.  | 1 Sample Wood Pallet, straight                                      |
| 1 Rock Face Plate with margin, for $\frac{1}{4}$ and $\frac{3}{4}$ Blocks.                               | 1 Sample Wood Pallet, corner  |

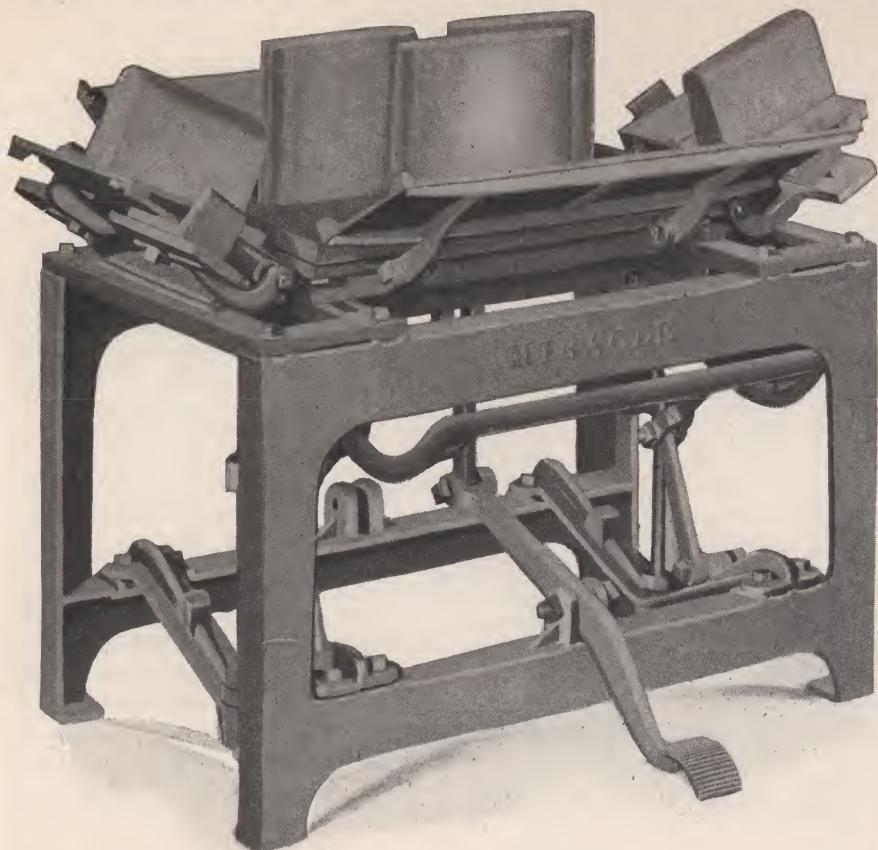
Equipment for making same blocks 12 inches in width will be substituted without extra charge.

**\$275.00 F. O. B. MINNEAPOLIS**

To "Exhibit A" users: Ask for price on Special Combination Drop Core Model.



## DROP CORE MODEL FOR MANUFACTURING MIRACLE DOUBLE AIR SPACE BLOCKS



SHOWING OPEN MACHINE



THE Drop Core Model is operated as follows: First place the pallet in position, then raise the core by use of the foot lever; close the end doors first then the side plates and next the latch or clamps that hold the plates in position. The machine is then ready for filling and tamping.

Tamp the blocks thoroughly; strike off level with the float and the block is removed in the following manner: Raise the drop lever which drops the core through the block, then open the machine and the block is ready to be removed on its pallet.

The Drop Core Model is equipped to produce the Miracle Double Air Space block, 8x9x24 inches—the block most used in ordinary construction.

This block weighs 75 to 80 pounds and displaces one cubic foot of wall space. It is equipped completely with accessories for making blocks 6, 12, 18 and 24 inches in length, also blocks for 12 inch return corner, in plain and rock face, also full equipment for manufacturing water table.

Much has been said about the capacity of various machines on the market. The capacity of any machine depends entirely on the men operating it, as it is absolutely impossible to gauge common labor.

The construction of our Drop Core Model is such that we can in all fairness to anyone, say that as many blocks can be produced on it as any machine now on the market.

Remember this machine produces a Double Air Space block, the block specified by well posted builders and architects.

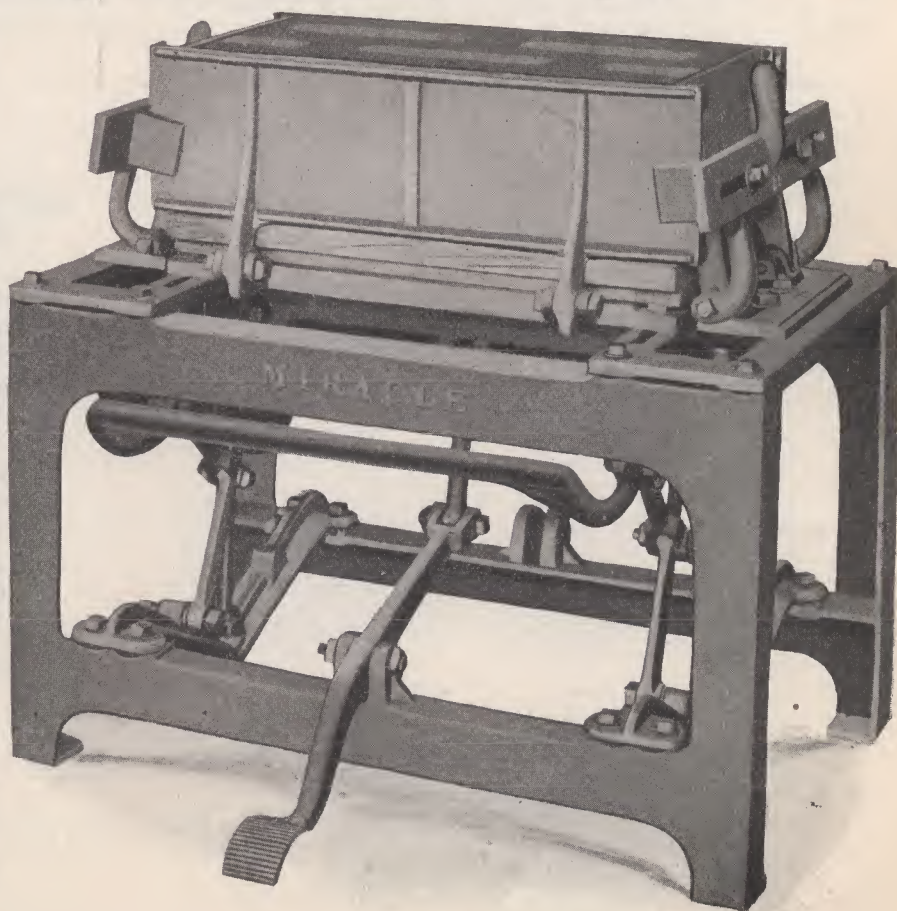
The Drop Core Model has the same honest, durable construction that characterizes all Miracle products. It is built of the best iron castings, every casting machine finished.

Strength and durability are its strong features, and it will last a life time under ordinary conditions.

The cores are bolted onto a bed plate and are raised and lowered with a foot lever which does away with the necessity of cogs and gears, that are liable to clog and collect cement.

The machine is guaranteed in every respect and any plates or parts found defective from defective workmanship or material, will be replaced free of charge within the term of one year.

Price, \$275.00 f. o. b. cars Minneapolis.

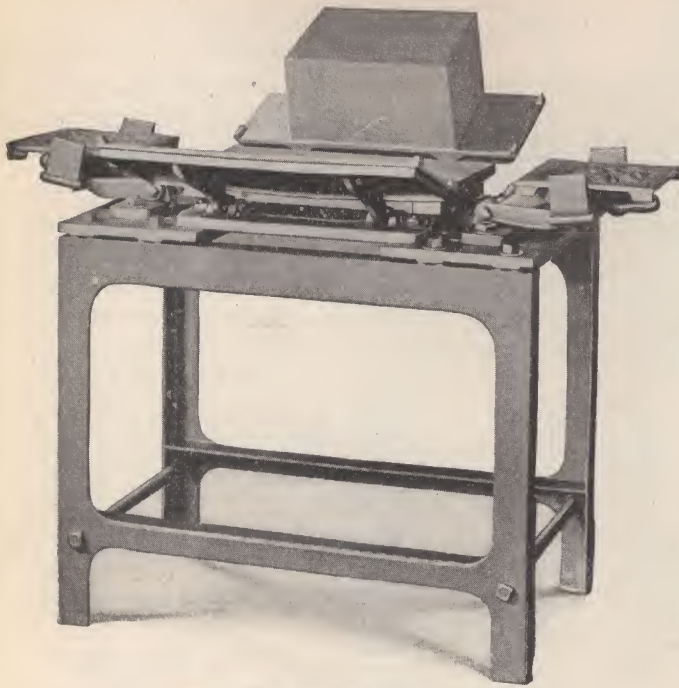


SHOWING CLOSED MACHINE



# MIRACLE TWO-PIECE CHIMNEY, PORCH PIER AND VENEER OUTFIT.

Price \$30 to \$32 According to Size.



Ready to Remove the Product.

There is a large demand for a concrete chimney block that can be very easily laid and which will entirely do away with the danger of the chimney cracking such as a great many brick chimneys will do.

To meet this demand we have constructed the Miracle Two-Piece Chimney, Porch Pier, and Veneer Outfit, illustrations of which are found on this page.

The U-shaped block is a very handy one to lay in a chimney or in a porch pier, and by breaking the joints every other course, a chimney is had in which there is room for contraction and expansion, which does away entirely with cracking. This also makes a very neat piece of work; in fact, a chimney or porch pier which looks much better than the old style one-piece chimney or porch pier block.

Every size of mold is provided with a filler, with which a veneer block as well as a return corner veneer block can be made. This is one great feature, because there are very few first class veneer block machines on the market.

The Miracle Two-Piece Chimney and Porch Pier outfit in its various sizes will make chimneys and porch piers 12x12, 14x14, 16x16, 18x18 and 20x20 in., both plain and rock face, and also veneer blocks in 12, 14, 16, 18 and 20 inch lengths. We give below on this page the different combinations of plates furnished at the prices quoted.

## CONSTRUCTION AND OPERATION.

The Miracle Two-Piece Chimney, Porch Pier and Veneer block machine is made of substantial gray iron castings throughout, with the exception of the half core which is made of wood. A wooden pallet is placed on top of the stand and the end and side plates are fixed in position with the help of the U clamps. The concrete is then tamped into the mold and struck off level across the top. The U clamps are turned in a quarter circle and the side and end-plates are turned in a quarter circle to free the block preparatory to carrying it away.

The end-and side-plates are quickly interchangeable for making different sizes of chimney or porch pier blocks; and the special filler for making veneer blocks is interchangeable with the regular filler for making chimney blocks.

### PRICES OF TWO-PIECE CHIMNEY BLOCK MACHINES

1 Stand consisting of		16" front plate, rock face	
Frame		16" " " plain "	\$16.00
Bedplate		16" back "	
Side hinge		8" end " plain " (two)	
End "	\$15.00	8" " " rock " (two)	
Clamp		Core 6"x12"	
" Jaw			
Spreader		18" front plate, rock face	
" rod		18" " " plain "	\$16.50
		18" back "	
		9" end " plain " (two)	
		9" " " rock " (two)	
		Core 7"x14"	
Any set of plates either 12-14-16-18 or 20-inches are adjustable to this stand.			
12" front plate, rock face		20" front plate, rock face	
12" " " plain "	\$15.00	20" " " plain "	\$17.00
12" back "		20" back "	
6" end " plain " (two)		10" end " plain " (two)	
6" " " rock " (two)		10" " " rock " (two)	
Core 4"x8"		Core 7"x14"	
14" front plate, rock face			
14" " " plain "	\$15.50	Any special size of core furnished with any size of plates.	
14" back "			
7" end " plain " (two)			
7" " " rock " (two)			
Core 5"x10"			



Showing Detail of Construction.

## FIVE SIZES COMPLETE

One Stand with Equipment for 12, 14, 16, 18 and 20 in. U Blocks, - \$75.00



# EXHIBIT "C," "D" and "E."

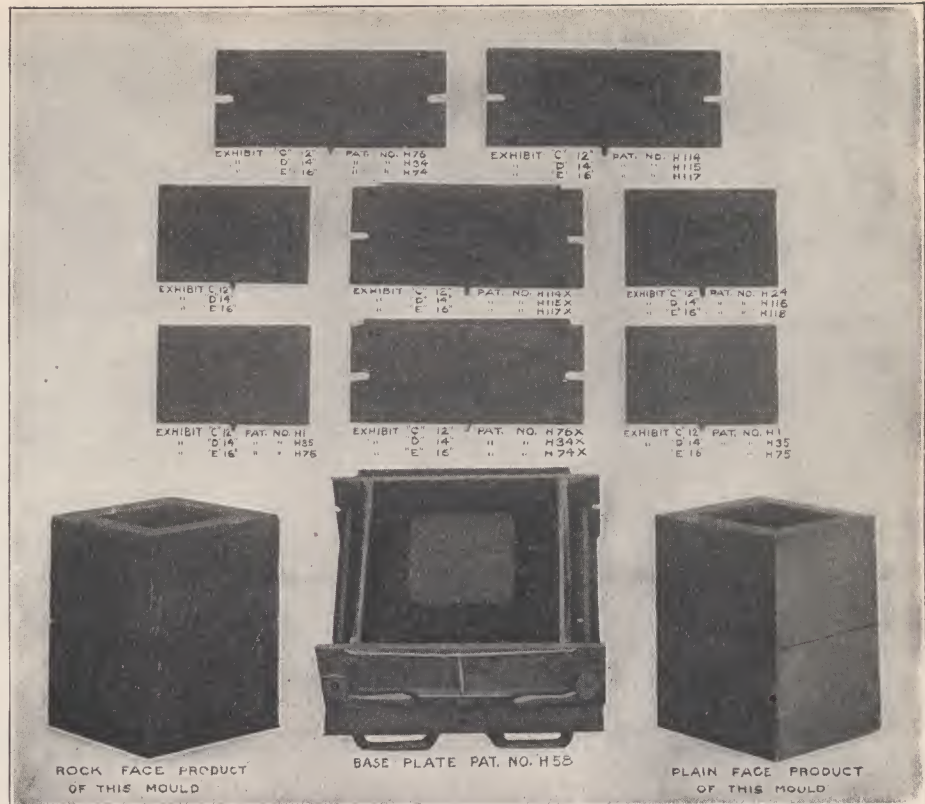
## FOR MAKING PORCH PIER BLOCKS

Exhibit "C," 12x12-inch. Exhibit "D,"  
14x14-inch. Exhibit "E," 16x16-inch.

In presenting these outfits, which are exactly alike except in size, we merely carry out our idea of a separate mold for every form of block.

These blocks make a good, single-flue chimney, the inside measurement of which is 7x7, the same being used by all sizes, so one can make any thickness of wall. For instance, if your building laws require full four inches of concrete around the flue, we recommend our Exhibit "E," which forms a wall of four inches.

They also make an ideal Porch Pier, Column or Foundation Pier, in rock, plain, beveled or hammered, or you can alternate them, which gives a very pleasing effect.



Exhibits "C," "D" and "E." The only difference in these exhibits being the size of the plates.

### EXHIBIT "C."

List of Parts for Miracle Porch, Pier and Chimney Block  
Hand Tamp Machine, 12-inch.

PRICE, COMPLETE, \$30.00.

- 1 base.
- 1 large core.
- 1 Plain face front plate, 12-inch.
- 1 plain face back plate, 12-inch.
- 2 cam fasteners, 12-inch.
- 2 plain face end plates, 12-inch.
- 1 rock face front plate, 12-inch.
- 1 rock face back plate, 12-inch.
- 2 rock face end plates, 12-inch.

### EXHIBIT "D."

List of Parts for Miracle Porch Column, Porch Pier and  
Chimney Block, Hand Tamp Machine, 14-inch.

PRICE, COMPLETE, \$35.00.

- 1 base.
- 1 large core.
- 1 plain face front plate, 14-inch.
- 1 plain face back plate, 14-inch.
- 2 plain face end plates, 14-inch.
- 1 rock face front plate, 14-inch.
- 1 rock face back plate, 14-inch.
- 2 rock face end plates, 14-inch.
- 2 cam fasteners, 14-inch.

### EXHIBIT "E."

List of Parts for Miracle Porch Column, Porch, Pier and  
Chimney Block, Hand Tamp Machine, 16-inch.

PRICE, COMPLETE, \$40.00.

- 1 base.
- 1 large core.
- 1 plain face front plate, 16-inch.
- 1 plain face back plate, 16-inch.
- 2 plain face end plates, 16-inch.
- 1 rock face front plate, 16-inch.
- 1 rock face back plate, 16-inch.
- 2 rock face end plates, 16-inch.
- 2 cam fasteners, 16-inch.

### NOTICE.

Hammered or Panel face plates may be had in place of above plain or rock face plates or may be purchased in addition. See list of parts below.

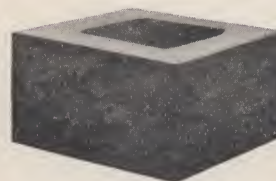
### EXTRA FACES FOR PORCH COLUMNS.

Either of the following faces (Panel or Hammered) for the porch pier and chimney outfits may be substituted for the rock face as shown, or either face may be purchased as extra plates if desired, at the following prices:—

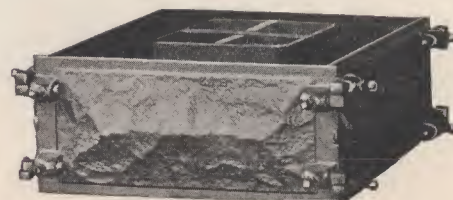
4 panel faces (2 front and 2 end plates) 12x12-inch .....	\$14.00
4 panel faces (2 front and 2 end plates) 14x14-inch .....	16.00
4 panel faces (2 front and 2 end plates) 16x16-inch .....	20.00
4 hammered faces (2 front, 2 end plates) 12x12-inch .....	14.00
4 hammered faces (2 front, 2 end plates) 14x14-inch .....	16.00
4 hammered faces (2 front, 2 end plates) 16x16-inch .....	20.00

## SPECIAL PIER MOLD

PRICE, \$10.00.



This mold is furnished in either plain or rock-face, and in sizes 14, 16 or 18 inches square, and in height, either 6 or 8 inches.





# A FEW POSSIBILITIES WITH A COMPLETE MIRACLE OUTFIT.



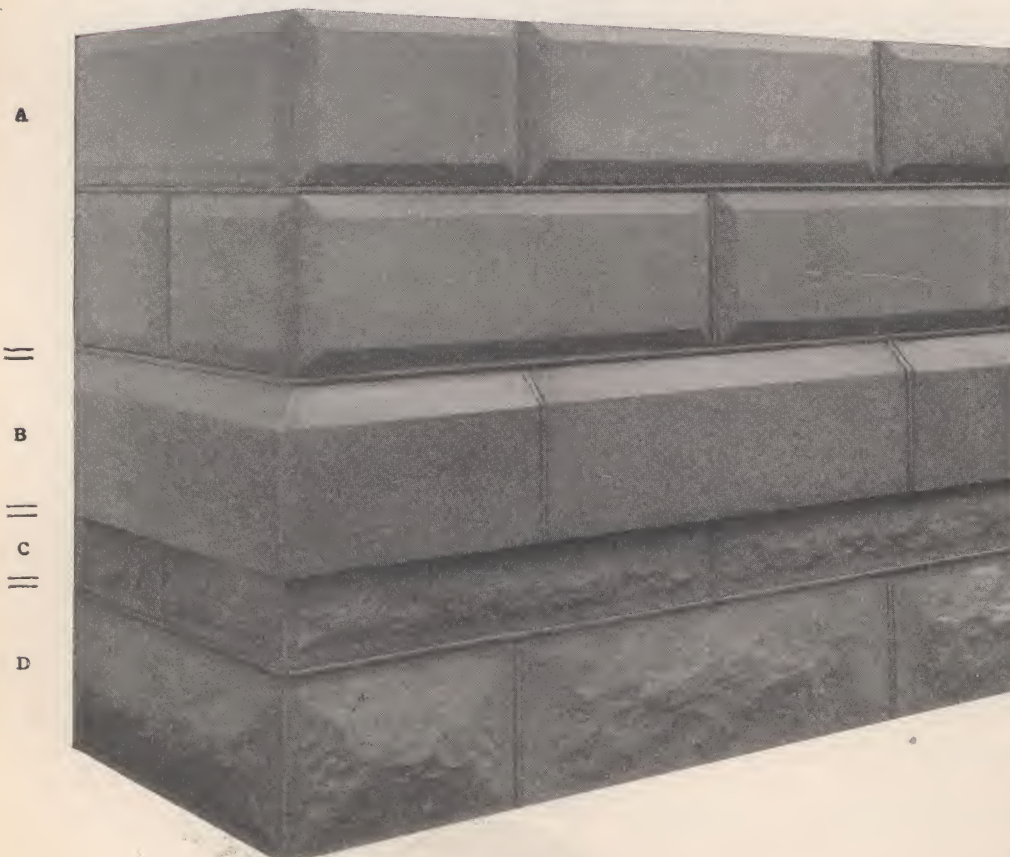
Block Exhibit No. 1.

The Best Results Are Easily Accomplished  
With Miracle More Money Molds.

## EXHIBIT NO. 1.

Showing wall constructed of blocks made with the following plates:

- "A" cornice . . . .H-130
- "A" cornice, corner H-131
- "B" belt or frieze..H-70
- "B" belt or frieze,  
one-half . . . .H-71
- "B" belt or frieze..H-72
- "C" broken ashler..H-140
- "D" half height or  
4-inch block, half  
length . . . .H-90
- "D" half height or  
4-inch block, half  
length . . . .H-91
- "E" rock face with-  
out margin . . .H-94
- "E" half rock face  
without margin..H-96



Block Exhibit No. 2.

## EXHIBIT NO. 2.

Showing effect of rock face foundation, water table and panel face blocks for body of building, constructed of blocks made with the following plates:

- "A" panel, full length. . . .H-10
- "A" panel, half length. . . .H-9
- "A" panel, end . . . .H-11
- "B" water table . . . .H-77
- "B" water table, end . . . .H-78
- "C" half height, or 4-inch  
block . . . .H-90
- "C" half height block, one-  
half . . . .H-91
- "C" half height block, end..H-92
- "D" bold rock face. . . .H-62
- "D" bold rock face, one-half H-63
- "D" bold rock face, end. . .H-64



## EXHIBIT NO. 3

Shows idea for porch constructed with blocks made on following plates.

- "A" cornice .....H-130
- "A" cornice, corner .....H-131
- "B" belt or frieze .....H-70
- "B" belt or frieze, half blocks..H-71
- "B" belt or frieze, end.....H-72
- "C" full length panel.....H-10
- "D" ..... Cap and sill outfit
- "E" .....Porch pier



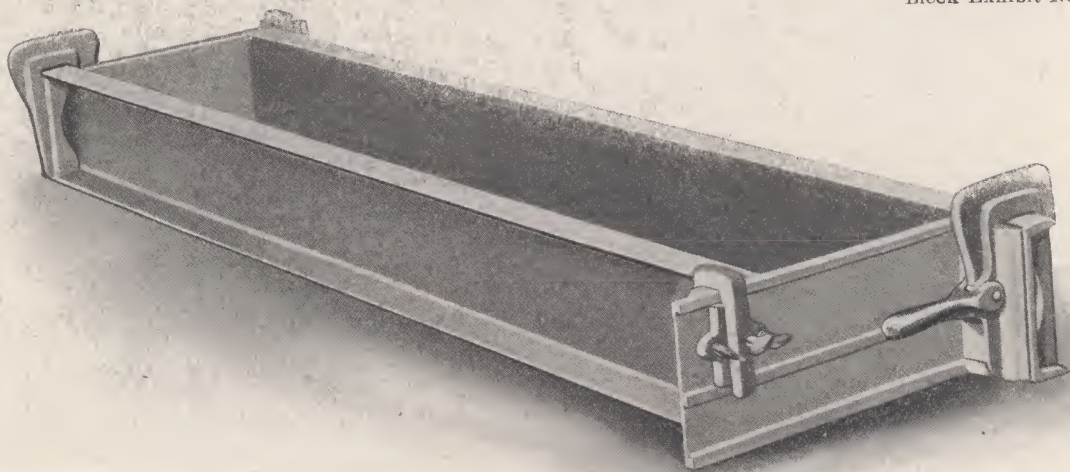
# The New MIRACLE

## Cap, Sill, Step and Coping Mold

MADE ALL IRON

This mold is adjustable for any length of product up to 72" and any width from 5" to 14". Height 8".  
Price \$35.00 complete. 5 per cent discount for cash in full with the order.

Block Exhibit No. 3



### CONSTRUCTION

The Miracle Adjustable Cap, Sill, Step and Coping mold is made of all iron. The clamps, adjustments and ends are made of the best gray iron castings, while the sides are made of steel channel beams, which insure a mold that is not only durable, but always true to line.

It requires but a few seconds to adjust this machine to any length or width.

### OPERATION

The product is made on a cement floor or wooden pallet. After the mold is adjusted to the length and width desired, tamp it full of concrete, then release the clamps and remove the mold. The finished product

is cured in the same manner as any other cement product by sprinkling for a period of ten days.

Where a molded or ornamental sill, cap or step is required, this ornamentation is secured by placing a wood form of the desired design on the inside. For a product less than 8" in height, a filler is placed in the bottom of the mold.

A manufacturer of concrete products cannot afford to be without this mold, and it will pay for itself with a few caps or sills, or other special products. It is designed with a view of doing away with handling or moving the product from the pallets when freshly made. This eliminates any danger of damaging the concrete.

Price, complete, \$35.00.



# Ornamental Concrete Products

THE KEY TO CORRECT ARCHITECT IN THIS MATERIAL  
AND A MOST PROFITABLE FEATURE OF THE INDUSTRY.



IN making Concrete buildings nothing can add so much to the universal popularity of the product as to carry out the idea of completeness in all concrete. A concrete house with a wooden porch shows up the weakness of wood construction by contrast. Porch posts and other wooden ornaments are not so good as they were only a few years ago on account of the impossibility to get good clear lumber. So wood used in this work not only requires frequent coats of paint but soon commences to get out of shape from warping and it very readily rots out. How often have you noticed the bottom of wood porch columns rotted out while the balance of the job is apparently in good condition. How soon it all looks old and needs repairing and painting. On the other hand a concrete porch carries out the idea of permanency and uniform beauty to the end. Concrete avoids all the evils of wood construction and will last forever. It can be made with our molds to compete with ornamental wood columns and balusters at a profit of 300 to 400 per cent in favor of concrete.



When you have one nice job complete, showing the building made of concrete blocks or brick with all ornamental work of concrete, it will not only sell other ornamental products but helps enormously the sales of your manufactural products, whether the trend be toward blocks or brick.

So by all means don't neglect this branch of this business. Nothing can add to the popularity of concrete like carrying out the idea of completeness.

Concrete Columns and Balusters are even being used for Porches for wooden buildings to a good advantage.

## INSTRUCTIONS

### FOR MANUFACTURING ORNAMENTAL PRODUCTS

On account of the large number of our customers who are making ornamental concrete products, we have made extensive and exhaustive experiments to ascertain the very best way to make such products. Many customers follow the dry process in ornamental work and use one part cement to two parts of very fine sand. In so doing it is best to carefully prepare the mold, brushing them with either paraffine or R. O. U. mold wash to prevent the concrete adhering to the form. Very fine sharp sand or stone dust should be used to bring out the detail and great care taken in tamping in the concrete to insure a clean cut, perfect molding with good edges. With the dry process, the mold can be immediately removed and the product is cured in the same manner as concrete blocks, viz.—by sprinkling them for about ten days after molding.

We, however, have found by our own experience that a more perfect capital, column or other fancy product can be made by using the extremely wet process, which does away entirely with hard tamping and the need of such care in removing the mold. For this reason we give the following instructions which we believe will be of benefit to purchasers of ornamental molds.

### PREPARING THE MOLD

Cover carefully with paraffine or R. O. U. mold wash, which is furnished by us at \$1.40 a gallon, allowing the wash to thoroughly dry.

### MATERIAL

Use one part of Portland cement of the lightest color obtainable and three parts of very fine sharp sand, marble dust, or crushed lime stone screenings (any one of the three materials mentioned are satisfactory.) Mix the cement and other aggregate very thoroughly and then add water, making the mixture very wet so it assumes the nature of thick cream. Pour this mixture into the mold and allow it to settle before filling again. Being very wet, the water will come to the top and it may require three or four fillings to get a dense concrete.

With the use of a stick, stir or pump the mixture well after filling the mold to eliminate all the air from the mixture which would cause the stone to be porous on the outside. If any air bubbles do occur in the surface, fill with more cement mortar and after a day or two go over the surface with fine sand paper.

### CURING

Allow the concrete to stand in the mold for two or three days. Then strike the mold lightly to free it from the concrete, take out the pins which hold the mold together, and remove the plates. The product should then stand for seven days or more before using.

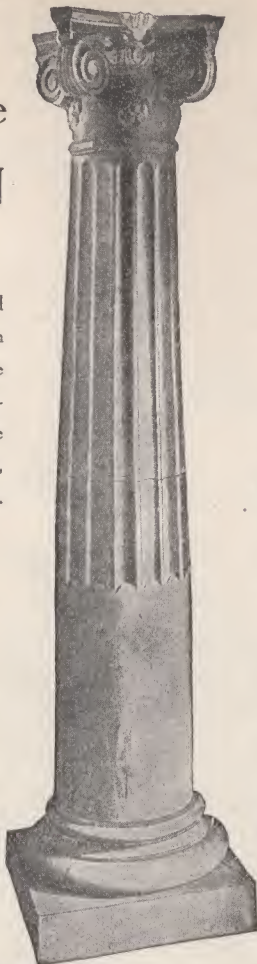
To secure a specially glossy finish, rub the concrete with pumice stone moistened with silica of soda, after it is about seven days old. And to smooth up any joints use fine sand paper.



# MIRACLE ORNAMENTAL CONCRETE PRODUCTS.

## Renaissance COLUMN

The true cut lines and beauty of this column make it a desirable one to builders. The heaviest section of the molds to be drawn, weighs only 15 pounds.



The EMPIRE is a popular style. This column being made in short sections is very easily set. The heaviest part of the molds to be drawn weighs only 10 pounds.

Size of base,  $16\frac{1}{2} \times 16\frac{1}{2}$  inches. Diameter of shaft, 11 inches. Size of base abacus, 17 inches. Four molds are required.

Outfit with cores. . . . . \$35

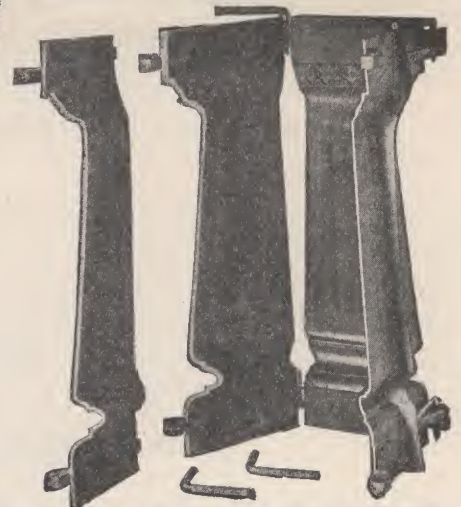
Capital mold only . . . . . \$15

18-inch diameter. Outfit complete. . . . . \$75

18-inch, Capital only. . . . . \$25

For sizes and prices see order blank.

## Square Baluster Post Mold

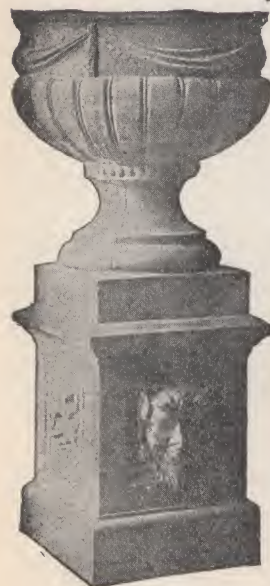


Showing Simple Fastening and Method of Operation

## Newel Post Depressed Panel

Height, 28 in. Base, 8x8 in.

Price . . \$20



## Lawn Vase

Height,  $33\frac{1}{2}$  in. Outside dia., 16 in. Diameter of bowl, 12 in. Depth of bowl, 8 in. Height of base,  $15\frac{1}{2}$  in. Size of base, 12 in.

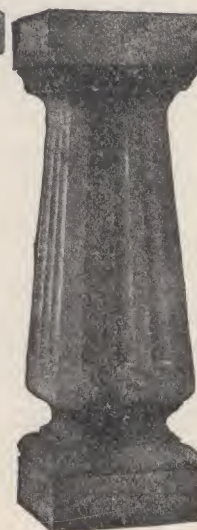
COMPLETE OUTFIT \$30 Without base. . . \$20



## Round Baluster Posts

18-INCH ORNAMENTED WITH RENAISSANCE LEAF

\$10



## Square Baluster Post

18-INCH FLUTED HEART-LEAF ORNAMENTATION

\$10

Size of Base and Top,  $5\frac{1}{2}$  inches.

## Square Baluster Post

14-INCH FLUTED ORNAMENTED WITH EGG and DART.

\$10

Size of Base and Top, 4 inches.



## Plain Round

14-inch, \$7.50  
Size of Base and Top,  $4\frac{1}{2} \times 4\frac{1}{2}$  in.

16-inch, \$10.00  
Size of Base and Top,  $5\frac{1}{2} \times 5\frac{1}{2}$  in.

18-inch, \$10.00  
Size of Base and Top, 6x6 in.

24-inch, \$15.00  
Size of Base and Top, 6x6 in.



## Ball and Base

2½-in. Ball and Base	\$3.00
3½-in. Ball and Base	4.00
6-in. Ball and Base	10.00
7-in. Ball and Base	10.00
10-in. Ball and Base	15.00
12-in. Ball and Base	17.00
15-in. Ball and Base	20.00
16-in. Ball and Base	20.00
18-in. Ball and Base	20.00





**MIRACLE PRESSED STONE CO.****ORDER BLANK**

Manufacturers of all Kinds of

Concrete Machinery and Equipment

NICOLLET ISLAND, MINNEAPOLIS, MINN.

Date \_\_\_\_\_ 190\_\_

**AMOUNT ENCLOSED**

P. O. Order \_\_\_\_\_

Express Order \_\_\_\_\_

Bank Draft \_\_\_\_\_

Check \_\_\_\_\_

Currency \_\_\_\_\_

Ship to \_\_\_\_\_

Ship via \_\_\_\_\_

Quantity	ARTICLES	Price	TOTAL
	Renaissance Column Mold, waterleaf, 12-inch diameter, 6 feet 4 $\frac{5}{8}$ inches high.....	\$50.00	
	Renaissance Column Mold, 12-inch diameter, 6 feet 5 inches high, complete.....	45.00	
	Renaissance Column Mold, 10-inch diameter, 6 feet 3 inches high, complete.....	40.00	
	Renaissance Column Mold, 8-inch diameter, 6 feet high, complete.....	35.00	
	Capital Mold, only for above columns.....	15.00	
	Doric Column, 9 feet.....	50.00	
	Empire Column, complete, 11-inch diameter.....	35.00	
	Empire Column, complete, 18-inch diameter.....	75.00	
	Capital Mold, for 11-inch Empire Column.....	15.00	
	Capital Mold, for 18-inch Empire Column.....	25.00	
	Grecian Column Mold, 10-inch diameter, complete .....	30.00	
	Capital Mold, only .....	10.00	
	2 $\frac{1}{2}$ -inch Ball and Base Mold.....	3.00	
	3 $\frac{1}{2}$ -inch Ball and Base Mold.....	4.00	
	6-inch Ball and 8-inch Base Mold.....	10.00	
	7-inch Ball and Base Mold.....	10.00	
	10-inch Ball and Base Mold.....	15.00	
	12-inch Ball and Base Mold.....	17.00	
	15-inch Ball and Base Mold.....	20.00	
	16-inch Ball and Base Mold.....	20.00	
	18-inch Ball and Base Mold.....	20.00	
	Square Fluted Heart Leaf Baluster Mold, 5 $\frac{1}{2}$ x5 $\frac{1}{2}$ x18 inches .....	10.00	
	Round Baluster Post Mold, Renaissance Leaf, 18 inches .....	10.00	
	Plain Round Post Mold, 4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x14 inches.....	7.50	
	Plain Round Post Mold, 5 $\frac{1}{2}$ x5 $\frac{1}{2}$ x16 inches.....	10.00	
	Plain Round Post Mold, 6x6x18 inches.....	10.00	
	Plain Round Post Mold, 6x6x24 inches.....	15.00	
	Lawn Vase Mold, complete.....	30.00	
	Lawn Vase Mold, without base.....	20.00	
	Square Baluster Mold, fluted, ornamental egg and dart, 4x4x14 inches.....	10.00	
	16-inch Roman Post Cap, consisting of—		
	One 12-inch Ball Mold.....	10.00	
	One 16-inch Roman Cap.....	15.00	
	One 16-inch Ball Base.....	10.00	
	Complete Ball Cap and Base, as above.....	30.00	
	Fluted Square Baluster Mold, 8x20 inches.....	15.00	

Total \$ \_\_\_\_\_



# Miracle Guarantee Bond.

**To Whom it May Concern:** We, the Miracle Pressed Stone Company, incorporated under the laws of South Dakota, doing business lawfully in the City of Minneapolis, and each member thereof, hereby agree, as a company and as individuals, that if in any case Miracle Machines, Molds or other manufactures are found not to be as represented by us, or will not do the work claimed for them, they can be returned at any time within ninety (90) days of the date of purchase, and if in good condition, less reasonable wear, we will immediately refund the price paid for same. Prosperity for us depends on the success of Miracle customers and the prosperity of the concrete industry, hence our established policy of doing everything in our power to help them succeed.

We further guarantee equally careful and prompt attention to all customers, whether their orders be large or small.

SIGNED: **Miracle Pressed Stone Co.**

*By the President,*

*O. W. Miracle*

ATTEST:

*By the Sec'y and Treas.,*

*Tomuraeh*

*Minneapolis, July 1st.*





# MIRACLE ORNAMENTAL CONCRETE PRODUCTS.

## Renaissance Column

Water Leaf Design

Outfit Complete . . . \$50

Capital Mold only. . . \$15

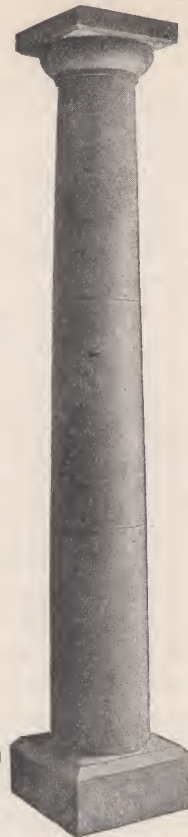


## 9-Foot Doric Column

This column is of true Doric design. The shaft is made in three sections. It is easy to make, and molds are in light sections.

Size of Base, 8x8 in.; size of base of shaft, 13 $\frac{1}{4}$  in.; size of neck, 10 $\frac{1}{2}$  in.; size of abacus, 16 $\frac{1}{4}$  in.

Price complete with Cores. . . \$50



## Grecian Column

This Column is parallel, 10 inches in diameter.

Four molds are required; base, capital, necking, and shaft.

The latter is made either in 2 ft. or 2 ft. 5 in. sections and is supplied with core and a follower for making shorter lengths.

The length of base, necking and capital is 18 in. When ordering, please state whether 2 ft. or 2 ft. 5 in. shaft is preferred. Base 14 inches.

Price Complete . . . \$30

Capital Mold only . . . \$10



## Baluster Rail

A handsome pattern to be placed in the top of the balusters. Length 32 inches. Can be used on balusters from 4 to 6 inches square . . . \$10

## 16-in. Roman Post Cap

CONSISTING OF

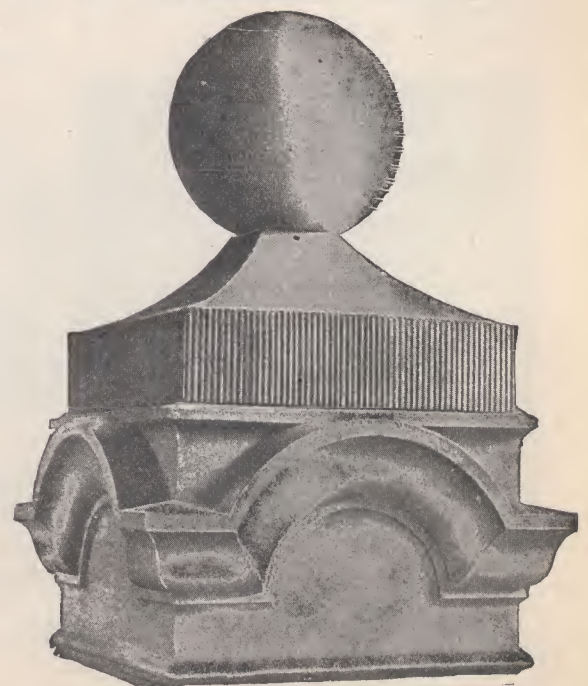
- 1 12-in. Ball Mold, \$10.
- 1 16-in. Roman Cap, \$15
- 1 16-in. Ball Base (including vertically tooled section) \$10; Complete, \$30

## Miracle Column Capital and Base Molds



	Height	Width	
For 24 in. column	14 in.	34 in.	\$40.00
For 30 in. column	16 in.	40 in.	45.00
For 36 in. column	18 in.	48 in.	50.00

For special sizes prices will be quoted on application  
f. o. b. Minneapolis.





## Miracle Monument Molds



No. 1 Obelisk, 84 in. high, 36x36 in. base.  
 Cost in cut stone .....\$150.00  
 Cost for labor and materials made in  
 concrete, not over..... 6.00  
 Cubic contents.....12 cu. ft.  
 Sells for.....\$50.00 to \$60.00  
 MIRACLE MOLDS, for parts, 4 sections  
 complete.....\$115.00  
 No. 2 Obelisk, 42 inches high..... 57.50



No. 4 Low Headstone 22 in. high, 24x18 in. base.  
 Cost in stone.....\$75.00  
 Cost for labor and material in cement... 2.50  
 Cubic contents.....3½ cu. ft.  
 Sells for \$25 to \$30, with marble slab for letters.  
 MIRACLE MOLDS, 4 parts including top  
 section .....\$50.00

Practical concrete workers will have no difficulty in seeing the close relationship between the complete monument and the molds shown on this page. Only one of each set of four parts is shown, there being 16 in all to form Obelisk No. 1 of the Miracle Monument Molds Series.

The four parts of the obelisk (the shaft, the die, the second base and the base) as shown by the separation between the molds, are molded separately, and are set up the same as if cut from granite, a cement joint serving to make them, in fact as in appearance, one solid and enduring piece.

These designs are from the hand of a well known sculptor whose services were employed to give the Miracle Monument Molds the highest standing in memorial art. Without exception they have been pronounced graceful and appropriate, not alone by those who may be said to have studied the canons of artistic taste, but by the great public to whom they naturally appeal.

The molds are technically correct in form so as to *draw* well; they are all finished in the highest order of concrete mold manufacture and they will prove very profitable to many hundreds of enterprising men who will work while the big profit earning days are here.



4 OF EACH of these  
 molds constitute the No.  
 1 Obelisk Base, Second  
 Base, Die and Shaft.

## Low Headstone Molds

The metal molds for the two low headstones on this page are not shown on this leaflet. A general idea of the Miracle Monument Molds is given above. It is assumed that all practical concrete workers will understand the construction by the illustrations here shown.

The faces for lettering on both these headstones are shown in concrete. In cases where the lettering can all be put on complete at the time the headstone is erected, this can be done at very small expense by appropriately formed letters that can be placed on the face plate at the time the stone is made. We supply letters. Where desired an inexpensive slab of marble can be set in the face and cemented in place. Upon this the inscription may be carved as desired from time to time, as in the case of natural stone monuments.

Further particulars regarding the practical questions connected with the Miracle Mold branch of the great modern industry will be gladly given. Write at once.



No. 5. Low Headstone, 24 in. high, 18x24 in. base  
 Cost in stone.....\$75.00  
 Cost for labor and material in cement..... 3.50  
 Cubic contents.....4½ cu. ft.  
 Sells for \$30 to \$35 with marble slab for letters  
 MIRACLE MOLDS—4 parts including top  
 section.....\$60.00

For instructions in making product  
 see page 37





## Miracle Grave Stone Molds

By cutting the cost in two and at the same time giving a more enduring and more appropriate monument for the dead, the number of headstones that can be sold is not only doubled—it can be quadrupled. There are more than twice as many people who can and will pay from \$30 to \$70 for an appropriate grave marker than of those who can and will pay \$150 or more—the two monuments being about equally desirable.

Furthermore, there is the added advantage in the Miracle Monument Molds that the business can be solicited on the price argument and at the same time showing that it is in line with the largest and finest memorials, like those of the martyr President McKinley and others.



No. 3. Headstone and Cross 66 in. high 30x30 in. base. Cost in stone.....\$120.00  
Cost for labor and materials in cement.. 5.50  
Cubic contents.....11 cu. ft.  
Sells for \$45 to \$50 with marble slab for lettering  
MIRACLE MOLDS—4 parts, 3 sections,  
complete.....\$105.00

As a matter of fact, concrete monuments have no apology to offer as compared with granite or marble or the iron crosses which are quite popular among certain nationalities. The concrete burial marker business is a sure money maker to the man who will push it; and the largest profits will be made by those who get into it at the start.

No. 2. Tall Headstone 86 in. high, 36 x 20 in. base  
Cost in cut stone.....\$150.00  
Cost for labor and materials in concrete..... 6.00  
Cubic contents.....12 cu. ft.

Sells for \$60 to \$70 with marble slab for lettering.

**MIRACLE MOLDS**—4 parts  
4 sections, complete..\$110.00



## Miracle Grave Lot Post Molds

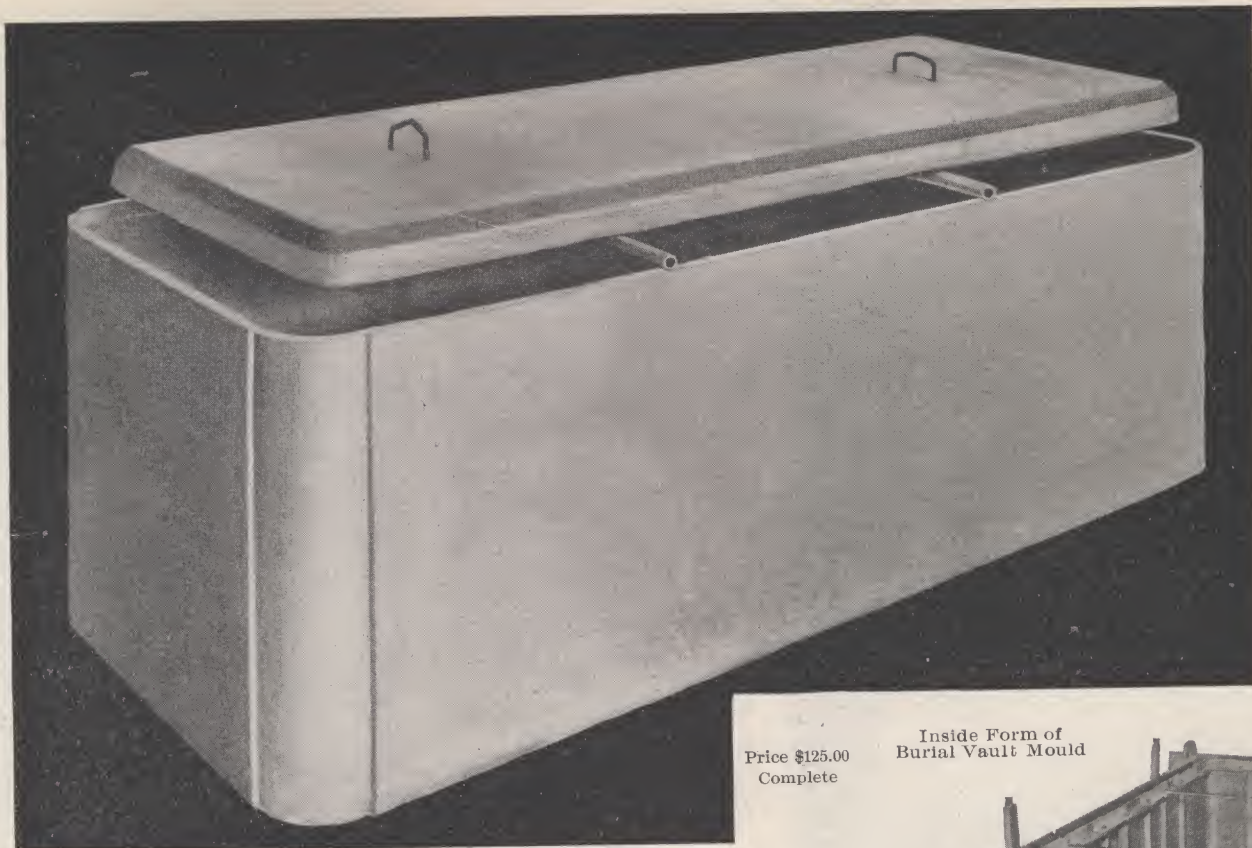
Here is a product that can be sold very readily in every cemetery. The lot number can be indented in the head with date or any other mark. The cost of making this handsome post does not exceed 25 cents. The size is 6x6x24 inches and it can readily be sold for \$2.00

**MIRACLE POST MOLDS** in two parts perfectly finished. Price . . . . . \$12.00



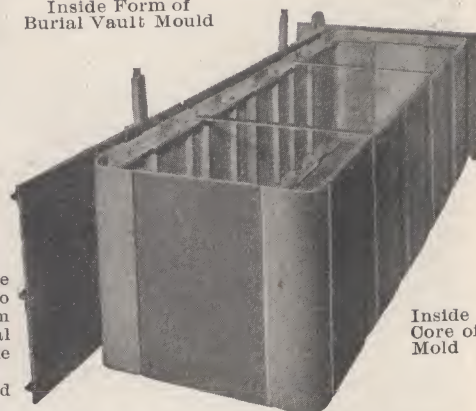
ROPE FACE COPING BLOCK will beautify any grave lot. It has a ready sale on handsome profits.  
FACE PLATE 2½ in. x 4 ft.....\$5.50 FACE PLATE 3½ in. x 6 ft.....\$7.50





Price \$125.00  
Complete

Inside Form of  
Burial Vault Mould



Inside  
Core of  
Mold

## MIRACLE STEEL MOLD FOR BURIAL VAULTS—All Sizes

**C**ONCRETE is the best of all materials for burial vaults. When sectional stone and slate vaults are used the grave must be dug ten to twelve inches larger than necessary, in order to give room for a workman to cement the joints and make them tight. You have from eight to twenty joints to seal. Can you seal them so that you feel sure they are air-tight and water-proof? When you have a wet grave, can you set a sectional vault in it? Steel will rust. How long will a steel vault stand the dampness of the ground? And can it be made water-tight to start with?

By examining the cut on this page you will see now easy it is to place the vault in the ground and seal the lid tight.

The Miracle Vault is water proof and air tight. It is practically proof against grave robbery, and is indestructible.

When the building of burial vaults was in its experimental stage, we sold quite extensively, molds built of wood. We now offer the New MIRACLE Steel Mold for building Concrete Burial Vaults. The price is \$125 complete. These metal molds are in the end much cheaper than wood molds.

No other form of burial vault will ever be used after concrete vaults have been introduced. They are sure to come into universal use, and the demand for them is as certain as death.

It costs from \$4 to \$6 to make a burial vault with the New Miracle Vault Molds.

The general selling price is \$40, placed in the grave. The profits, therefore, are very large. No man in the concrete business can afford to ignore the burial vault trade. The new molds are absolutely right. Note the description herewith.

The burial vault mould is composed of three parts—inner shell, outer shell, and lid mold.

**The Outer Shell** is made in four parts—two sides and two ends—each part made to slide at one end on the next part. These parts are made of No. 14 sheet steel, reinforced with  $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ -inch angles. On one end of each part is a casting of such shape as to make a rounded panel corner, giving the vault a finished appearance. The corners are held in place by a heavy clamp. It fits over the corner casting of one part and the side of the next, holding them perfectly rigid and square.

**The inside shell** is composed of 20 pieces. Each piece is made up of a sheet of No. 14 or No. 16 sheet steel and two  $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$  inch angles. These angles are slotted, and alternate angles are slotted so the other angles will ride in them steadily. The parts are bolted together by bolts through the slots in the angles. By loosening these bolts and sliding the parts the inner shell can be adjusted to any size.

When the vault is being made, the inner shell is swung inside the outer by means of hooks suspended from angles held in place by four blocks of cast iron clamped to the sides of the outer shell by means of set screws.

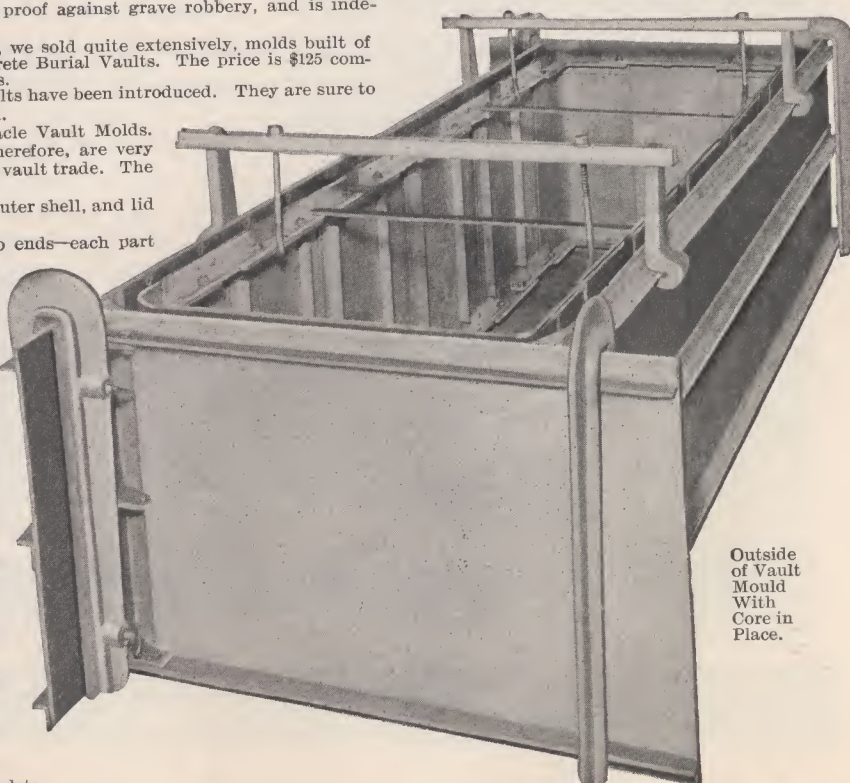
To insure that the inner shell will be rigid and square, four braces of strap steel, made adjustable, are placed across the inside.

**The lid mold** is made up of four cast iron pieces and four heavy clamps. The four pieces—two sides and two ends—slip on one another and can be adjusted to any size. They are so nicely fitted that when clamped in place they are held perfectly square and rigid.

All parts of this vault are of sheet steel or No. 1 cast iron, so there is nothing about it to warp or break with ordinary handling. All parts are carefully fitted and work with ease and precision.

The inside and outside shells are adjustable, independent of one another; thus allowing any thickness of wall desired.

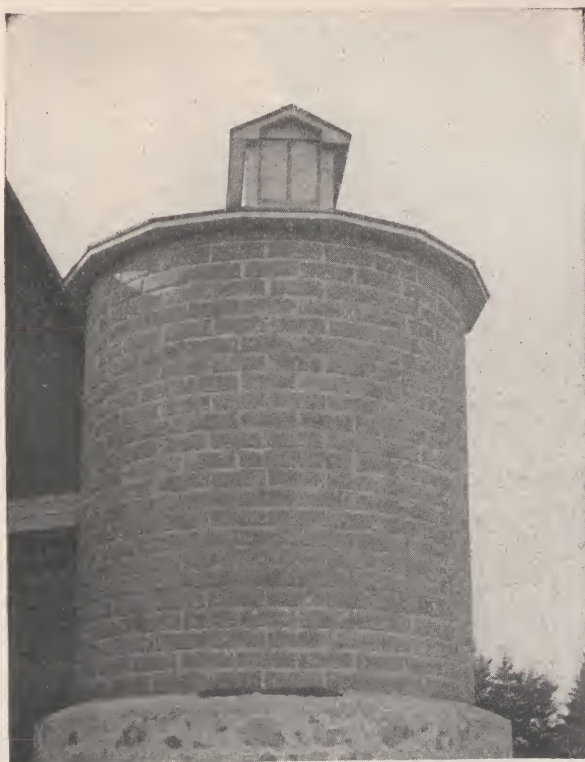
Any size vault from 2 ft. by 2 ft. 6 in. up to 2 ft. by 7 ft. 4 in. can be made with this mold, and a cover made to match. Price \$125.00 complete.



Outside  
of Vault  
Mould  
With  
Core in  
Place.



# BUILDING CONCRETE BLOCK SILOS



## DOUBLE AIR CHAMBER CONCRETE SILO BLOCK MACHINE.

Price, \$75.00.

Silos are becoming a very common thing, and there is no branch of the concrete industry which affords a better field for profit than the manufacture of the Double Air Chamber Silo Block.

Material is necessary in a structure of this kind that will not decay, and also a form of construction is necessary that will make a wall that is as impervious to frost as possible.

We equip a special Double Air Chamber Silo Machine that will make a stone 24 inches long on the face side, and 8 inches high, and we will furnish this machine in either rock, panel, hammered, or the plain face design, bent for any diameter; also for any width of block specified, although the 12-inch is usually preferred.

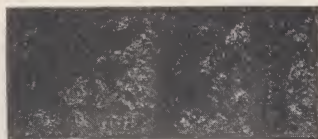
A complete outfit consists of the following parts:—One iron base with cores, one face plate, one back plate, one left ribbed end plate, one right ribbed end plate, two cam fasteners, two tampers, and two mallets. Price, \$75.00.

Parties having our regular Double Air Chamber Block Machine will be furnished extra plates for making this silo block, which can be adjusted to the regular machine, for \$23.00.

We have on hand a lead pattern which enables us to make a plate for any diameter promptly on receipt of order. In ordering, always specify the diameter of the silo or circle, measurements to be taken from the inside of the block. Also specify the width of block that you desire to manufacture.

## COMPARATIVE COST

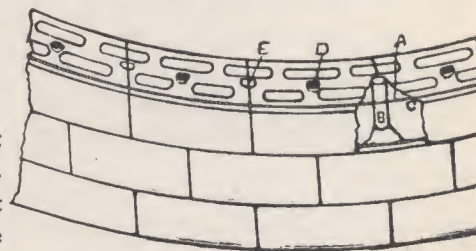
A rubble stone silo 30 feet high and 14 feet in diameter, requires about 3,000 cubic feet of stone, because it must be built with a two foot thick wall. This stone costs with masonry about 12 cents a cubic foot, which is about \$360.00 for complete silo. 1,000 8x9x24 concrete blocks will build the same silo, they cost laid about 18 cents each, or \$180.00 for a complete silo. This means a profit of about 100 per cent when competing with natural stone, making a frost proof silo, while the natural stone will freeze through.



## SINGLE AIR SPACE SILO MACHINE.

Price, \$17.50.

We have had a large demand for a low priced silo machine from people interested in concrete. We have, therefore, gotten together a machine for making a single air chamber silo block, which consists of the following parts: one face plate for full length block, 8x18 inches face, one face plate for half blocks, one back plate, one left end plate, one right end plate, two tampers and one core. Price \$17.50.



Sectional view Double Air Space Concrete Silo Blocks in place.

Auburn, N. Y. May 14, 1909.

MIRACLE PRESSED STONE Co., Minneapolis:

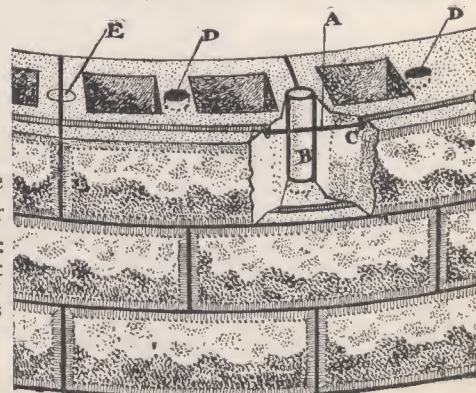
It may interest you to know that the concrete silo built of Miracle blocks on our place has come safely through a fire which totally destroyed our barns on May 6. The wall of silo was only 2 inches from siding of barn and the wind blew the flames against and over the silo, but the silo stands practically as before with the exception of wooden door frames. I do not think a single block will have to be replaced.

Am considering concrete barn and stables to replace the one destroyed and would appreciate your latest catalog. Concrete construction has been given quite an advertisement here by our silos unluckily experience.

Koon Bros., R. D. No. 2.

Yours truly,

A. H. KOON.

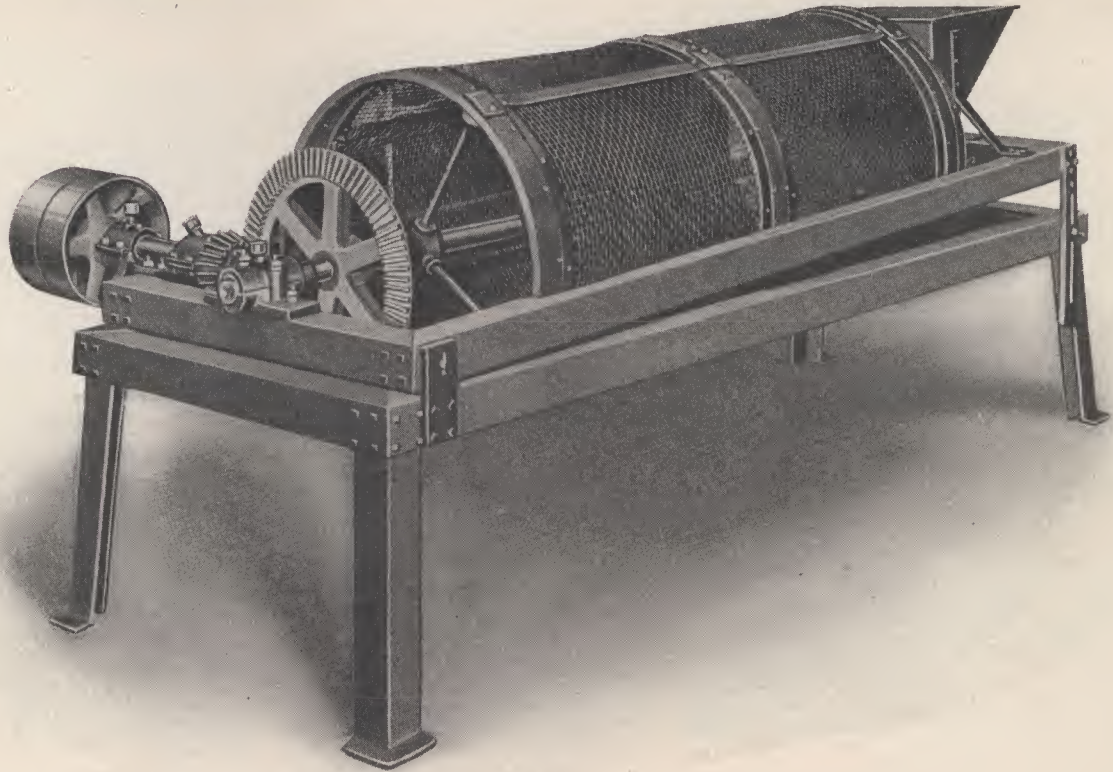


In Ordering a Machine specify inside diameter of Silo and width of Block desired.



# MIRACLE REVOLVING POWER SAND SCREEN

For the Manufacture of Brick, Tile, Cement Blocks, Sidewalks, etc.



The above cut illustrates our large size sand screen built of steel and iron,—no wood in its construction, whatever. It has 39' ft. of screen surface, is 9 ft. long and 3 ft., 5 in. wide. It is mounted on legs, and can readily be set in any position for immediate use. Where it is desired to use the machine over a sand bin, we omit the frame and legs, simply furnishing the upper frame and screen with power attachment.

One of the many good features of this machine is our method of instantly removing the sand screen and replacing it with that of a larger or smaller size mesh, as the case may require.

It is made up in two sections. Each section is made in halves. By the loosening of four set screws, any one half of a section may be removed and a new one replaced. In fact the whole screening surface may be removed and replaced with that of a larger size in less than five minutes.

The machine is made up in three sizes, 18" in diameter, 24" in diameter and 30" in diameter and with the following sizes of screen:  $\frac{1}{4}$  and  $\frac{3}{8}$ ",  $\frac{1}{2}$  and  $\frac{5}{8}$ ",  $\frac{3}{4}$  and 1",  $1\frac{1}{2}$  and 2". Any two sizes are furnished with each screen.

Write us for prices.

Muscatine, Iowa, July 10, 1909.

Miracle Pressed Stone Co.

Gentlemen:—In regard to your burial vault molds, will say we are well pleased with them. There is no sectional vault so good as the one piece vault. You could not give a sectional vault to me. The Miracle is the vault today. It meets the approval of every one who has seen it. We have thirty nice vaults on hand and are making more. Am well pleased with future prospects. We sold two vaults last week and one this week. We placed one last Sunday, in the presence of 3,000 people and you could hear nothing but praise for the vault. People are telling us every day that in less than six months we will be unable to supply the demand. The outlook is splendid.

Respectfully yours,

C. M. Bell & H. Timmerman.

Aurora, Ill., June 20th, 1909.

Miracle Pressed Stone Co., Minneapolis.

Gentlemen:—Your letter of the 25th at hand. Wanted to get some stock on hand before advertising very extensively. The mold is all right and produces a fine looking vault. There is no doubt but what the demand will grow after people realize their value. As to their selling better than the sectional vault, I have positive proof that a sectional vault cannot be sold when it is possible to get a two piece vault.

A firm here that makes a vault just like the one pictured in your catalog, has put the sectional vault man completely out of business.

Yours truly,

C. Armbruster,  
509 La Salle St.



# MIRACLE BLOCKS AS THEY SHOW IN ACTUAL BUILDING



County Poor Farm, Park Rapids, Minn.

## THE STORY AS THE CAMERA TELLS IT

The photographs reproduced in the following section of this exposition of Miracle Concrete tell their own story in a manner which will leave no uncertainty in the minds of the reader. It has not been the purpose to show only a few styles of buildings, or even of the more expensive of modern buildings, we include some that may not be regarded as the highest type of architecture, but the average is high and a great improvement over the buildings erected only a few years ago.

The special purpose is to show the various uses to which Miracle blocks are actually put by the average run of builders the country over. We wish particularly to illustrate buildings of the kind that will appeal to the average investor. We will be pleased to put prospective builders in touch with owners of the buildings herein shown. In this manner cost prices may be secured and such other information as may be desired.

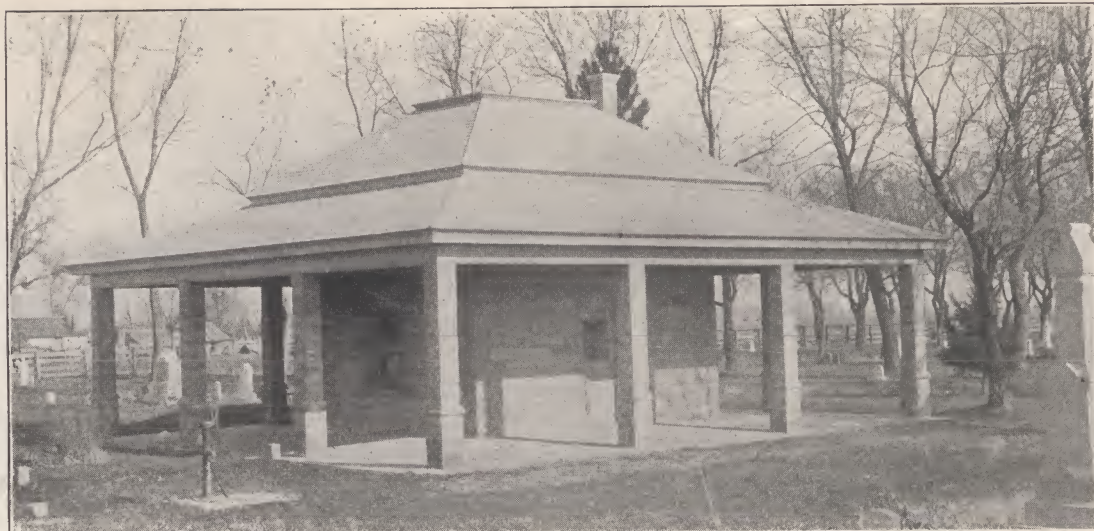
We call particular attention to the pages in this section showing plans. These are intended to give an idea of the character of the Portfolio of Concrete House Plans which we are now preparing.



# MIRACLE BLOCKS ARE USED IN MANY WAYS.



A Village Band Stand



Shelter House in Cemetery.



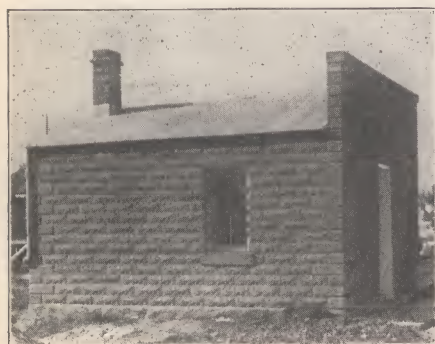
Blocking in a Boiler.



A Modern Hog House.



Lumber Yard Office.



Village Jail.

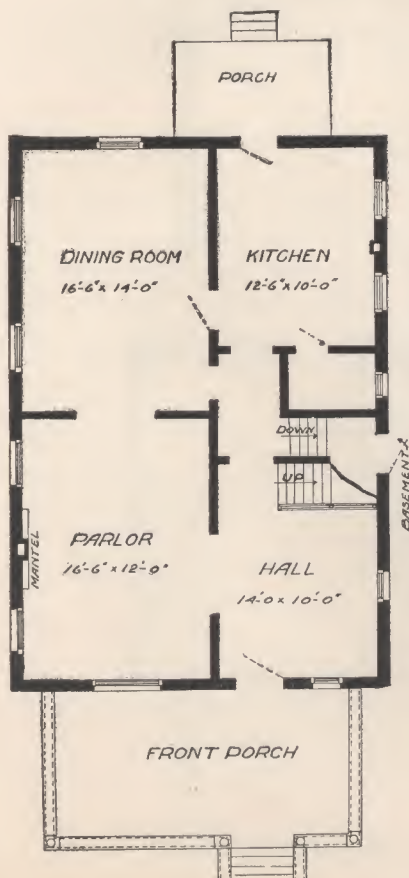




# BUILDINGS BUILT OF MIRACLE BLOCKS

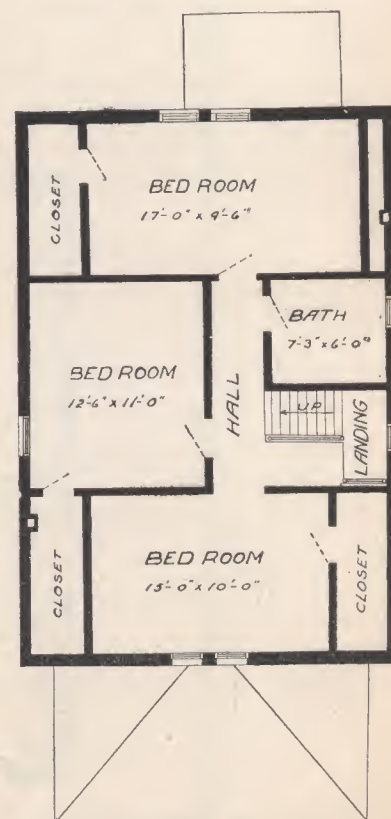


## A ROOMY MODERN MIRACLE RESIDENCE



This house has six rooms, reception hall, bath and ample closets. The design is one of the greatest convenience to be found anywhere for the average well-to-do family; an excellent design for sale or to rent. Note particularly the use of the Miracle porch columns, which, for the cost, are the cheapest feature about the building. Their cost is less than wood, which soon rots out at the base. Concrete is indestructible, which, being also used in the floor and steps, insures the builder that no repairs will be necessary.

The body of the walls is constructed of rock face blocks, two tiers of 4-inch blocks being used as bell courses. The corners are relieved with panel-faced blocks, the concrete being finished with a wreath belt course. The sills are rock face and the caps plain. The building is even more pleasing in fact than the illustration indicates.



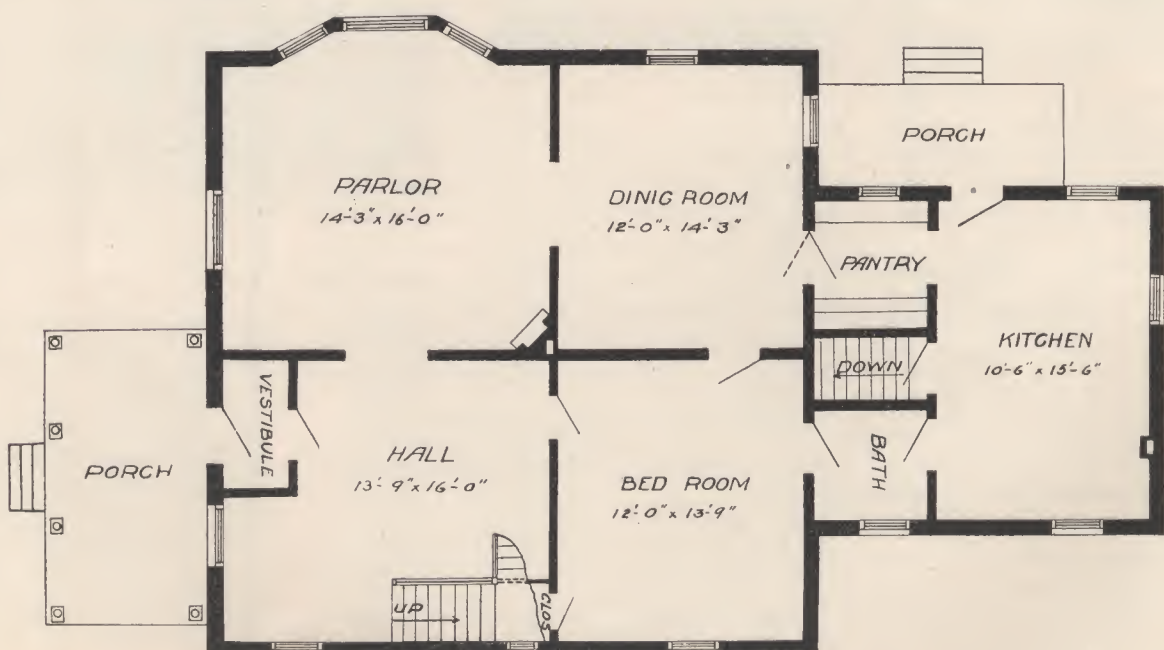


## BUILDINGS BUILT OF MIRACLE BLOCKS



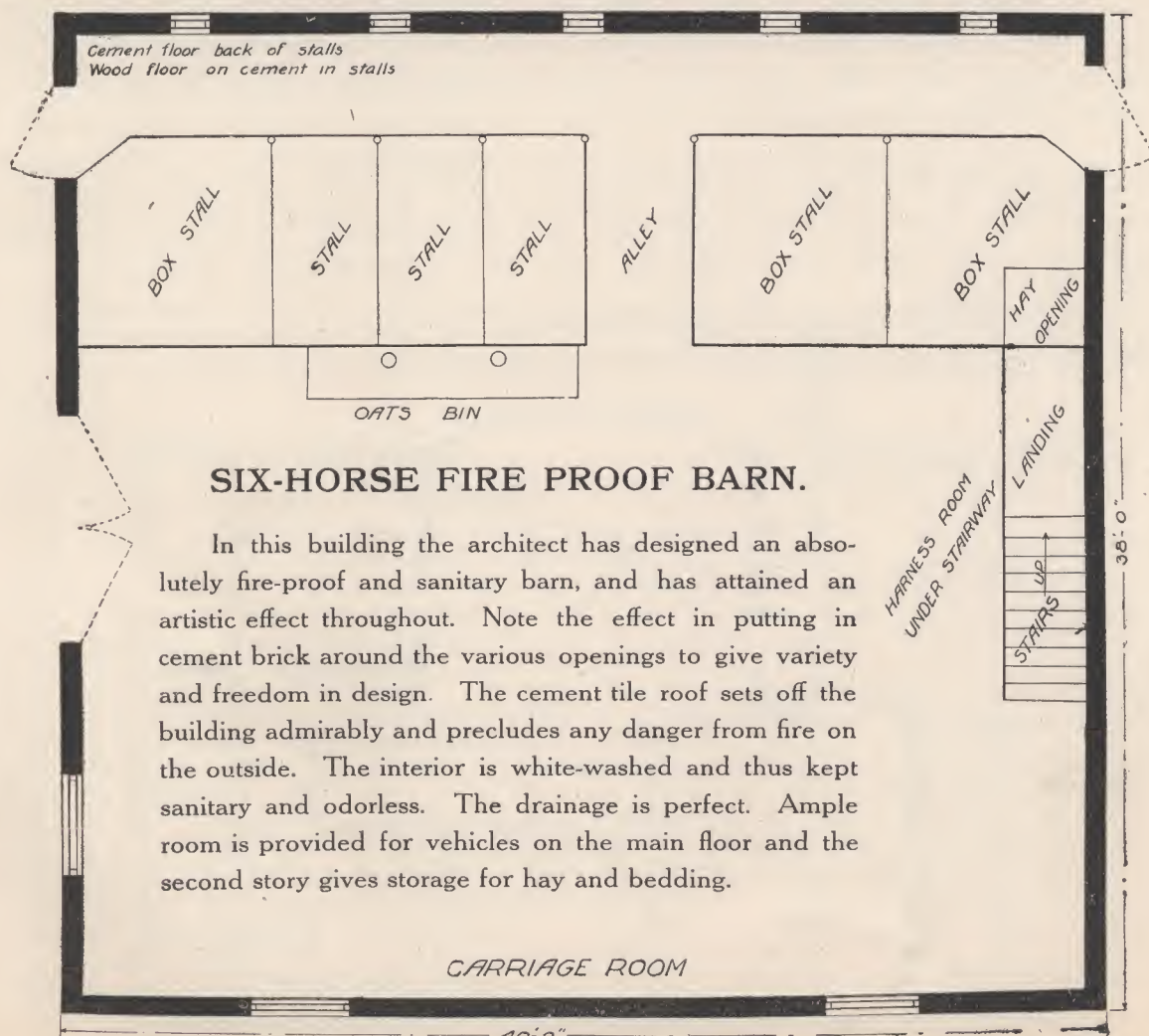
A MEDIUM PRICE MIRACLE RESIDENCE.

This building is constructed in the main of bold rock face Miracle Blocks, all corners and openings being trimmed with panel face. A 45-degree angle bay-window gives a pleasing character to the side of the building.





# BUILDINGS BUILT OF MIRACLE BLOCKS



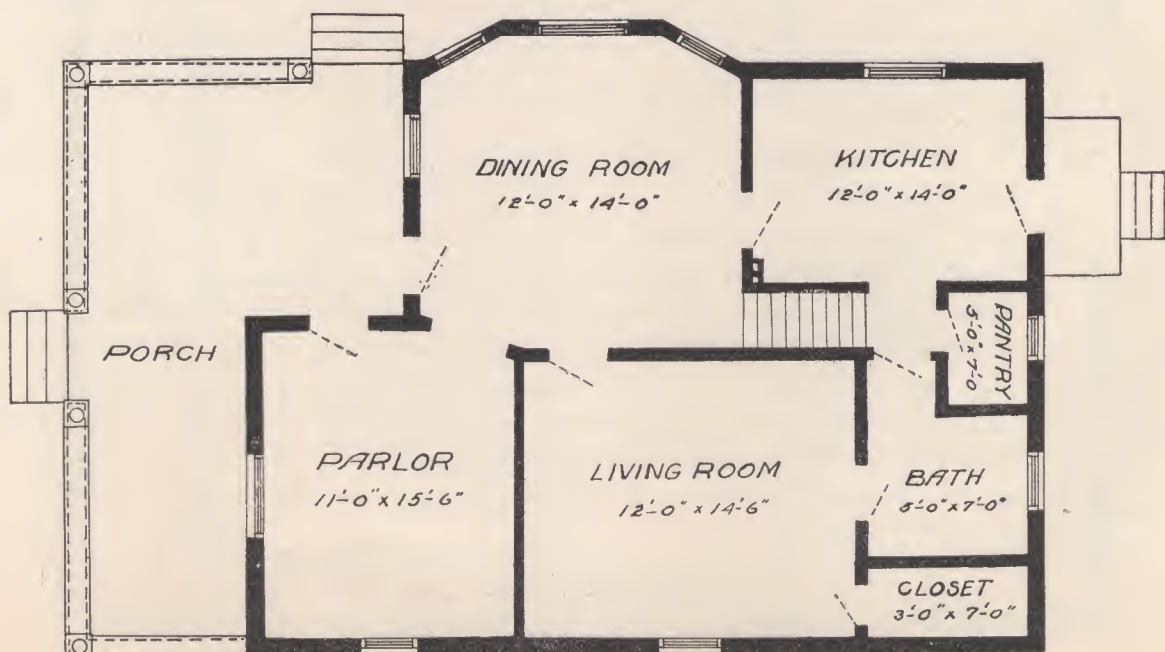


## BUILDINGS BUILT OF MIRACLE BLOCKS



A ROOMY CEMENT COTTAGE.

This cottage is particularly interesting in that it shows the possibilities of cement porch design. The main body of the house is supported in the front by four 12x12 rock face piers and two pilasters. The base of porch is constructed of water table blocks, rock face cement brick being used to give a lattice effect. The porch is large and roomy. The wall and chimneys of the house are of rock face blocks and all caps and sills are of plain face. Particular attention is called to the 45-degree bay-window in the dining-room. Note particularly that in this window all joints are properly broken, which is an important feature of the Miracle equipment.





## BUILDINGS BUILT OF MIRACLE BLOCKS



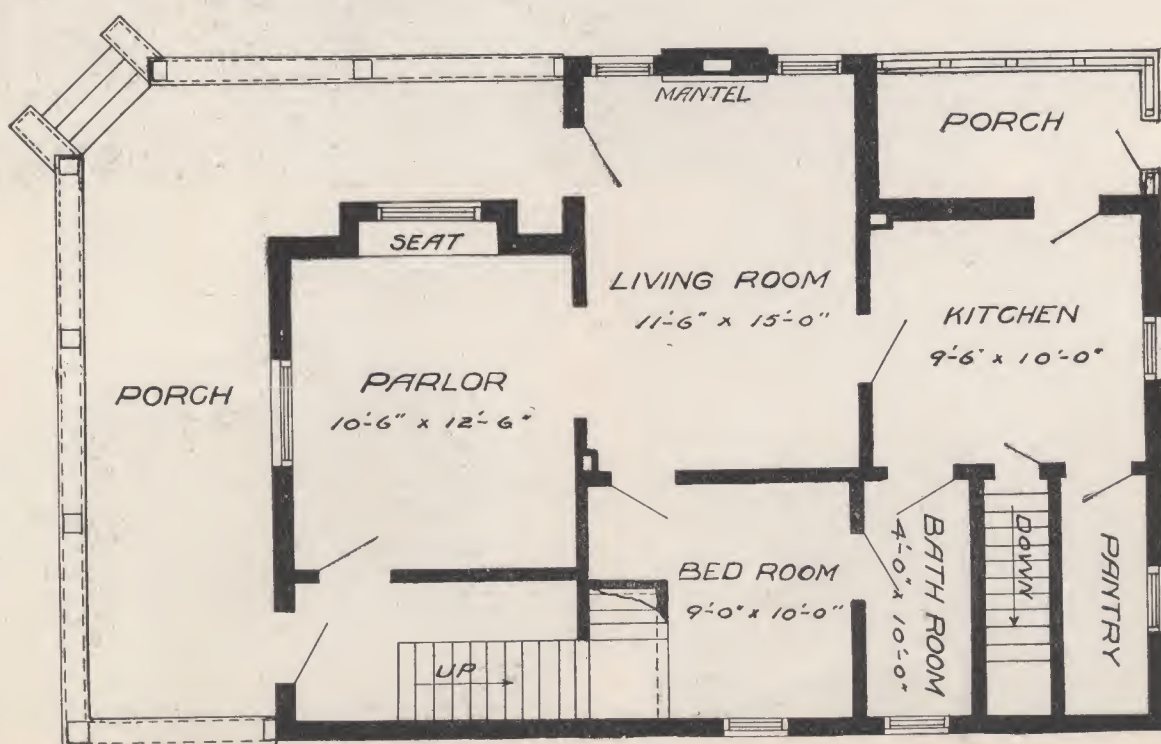
AN ARTISTIC "FEW STEPS" BUNGALOW.

This building was designed particularly for the housekeeper who wishes to "save steps". The rooms are not big, but so conveniently arranged that they give all the freedom of a much larger building. The design is such that it makes the porch a great out door living room, as it can readily be made to afford all the privacy required.

Two styles of blocks are used in this bungalow. The main body is constructed of the rock face Miracle block without margin, interspersed with broken ashlar design to lend variety, producing a very pleasing effect.

Please note that both chimneys are constructed of Miracle chimney blocks and are in keeping with the general design.

The shingle gables and heavy overhanging roof, stained brown in contrast with the natural cement color, gives the building a prominence and artistic character.





# SOME SCHOOL HOUSES



School Building of Miracle Blocks, Fort Worth, Texas.

AT FORT WORTH  
TEXAS

2 SCHOOLS

Attest the Public  
Approval of the  
Miracle Block  
for Public Build-  
ings.

The upper building  
had been erected about  
one year, when another  
new school building was  
required. The School au-  
thorities solved the prob-  
lem by ordering another  
building like the first.  
Note how nearly alike  
these buildings are.

For a typical large  
School House see page 5

## DISTRICT SCHOOLS

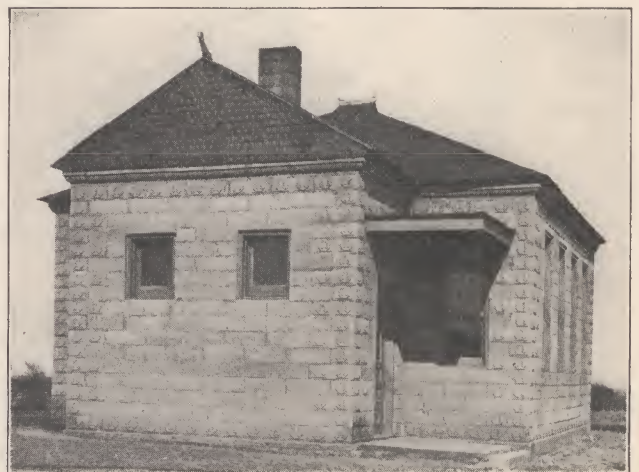
In recent years, the  
School Directors of the  
District Schools have  
sought to build schools  
that combine architec-  
tural beauty, and pleas-  
ing outlines with the  
primary consideration  
of health, comfort and  
convenience. The use of  
the Miracle Block in the  
two buildings at the bot-  
tom of this page shows  
how well this has been  
accomplished in these  
instances. In the hands  
of a builder of taste, a  
building of concrete  
blocks can be designed  
to equal any building  
material extant and at a  
great saving in cost.



Polytechnec School Building of Miracle Blocks, Fort Worth, Texas.



School at Lodi, Col., Perrin Bros., Builders.



School at Bethany, Mo., J. H. Friend, Builder.



# IN THE HEART OF THE TIMBER

It will seem incredible that Concrete Buildings can be erected with profit in the country where the best timber in the world is produced. Mr. Charles F. Craig, banker at Newport, Wash., has been operating a Miracle Concrete plant at that place for two years and has since established another Miracle plant at Spirit Lake, Idaho.



Chas. F. Craig

Reid Hardware  
Co. Building  
Newport, Wash.  
Built by Chas. F. Craig  
Cost \$5500.



Residence of Chas. F. Craig, Newport, Wash. - Cost \$4000



First National Bank of Newport, Wash. Cost \$1700 - Built by Chas. F. Craig -



Farmers Cooperative Store  
Newport, Wash.  
Cost about \$4500  
Built by Chas. F. Craig.



Maccabee Building - Roseburg, Oregon.





Arcade, N. Y.

## FROM FAR-AWAY CANADA

Weston, Ont., May 3d, 1907.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—I built a house of your double air spaced blocks here two years ago, and it has given me good results, without lathing or plastering. It was the first house built here, and a new thing to everybody. A great many thought it would be a failure; but instead, it has been a decided success. I have a cellar kitchen papered on the block without any plastering. It has been on two winters, and there is not a particle of damp on it, nor a stain on the paper, and as the proof of the pudding is the eating of it, any person that wants to know anything about double air spaced blocks, I show them over my house. So great was my opinion of them that I papered all over my house, upstairs and down, of the most delicate paper, and there is no stain on it to-day. People are coming for thirty miles to see it. Weston P. O., Ontario, Canada. Yours, WM. FOSTER.

## THE NEWS FROM MAINE.

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:—I purchased a Double Air Chamber block machine, Exhibit "A", from you a short time ago, and am so highly pleased with it that I cannot keep from writing you. I notice in your catalog that a great many purchasers of this outfit state that they have found the machine exactly as represented, and that they are doing a nice business, and I wish to go on record also in stating that I would not trade the Exhibit "A" outfit for making the Miracle Double Air Chamber block for anything ever devised in the concrete block business.

Any time that I have an opportunity to recommend your machine, you can rest assured that it will be impossible for me to speak too highly for it.

Yours very truly,  
(Signed) S. S. KIMBALL,  
Bangor, Me.



W. J. Lemieux, Plattsburg, N. Y.

## AFTER 2 YEARS

Spokane, Wash., Dec. 21, 1906.

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gents:—After over 2 years experience testing Block Machines and marketing their products, we find that the Double Air Space Block is the block that nine-tenths of the people want, its superiority over the single air space block is recognized by all.

We have tried a number of machines, all claiming to make a better, a cheaper as well as more blocks in the same time than could be made on the Miracle Machine. So far we have found no machine to equal the Miracle in speed, and the block made on Miracle Machine is the only perfect block made. We have two teams of three men each who will mix and tamp by hand, water and carry out on an average 60 blocks per man per day of 10 hours.

Yours for the Miracle Block,  
SPOKANE CONCRETE CO.,  
D. F. Strobeck, Manager.

## AFTER 4 YEARS

Spokane, Wash., March 16th, 1908.

Miracle Pressed Stone Co.,  
Minneapolis.

Gentlemen:

Yours of March 11th received, and we are pleased to acknowledge receipt of your much expanded new catalog. There are perhaps a few things shown therein that we will shortly require.

Regarding the cut it is the exterior corner, 9" block shown on page 20, H 62 that we want.

Our business is steadily increasing, and up to the present time this year, is more than three times what it was for the same period last year.

Yours truly,  
SPOKANE CONCRETE CO.  
B



# TYPES of HILLSIDE HOUSES

A Portion of  
one energetic  
man's work in  
Cumberland,  
Maryland



Residences of C. Perrin  
and W. F. McBride. Cost  
of each \$3000

Residence of V. T. Lucas



Residences of Mr. Ensley and  
H. Hawkins Cost of each \$2600



Residence of  
L. Ward





# CHURCHES

OF VARIOUS  
DENOMINATIONS

BUILT OF

MIRACLE BLOCKS



Presbyterian Church, Kalamazoo, Mich.

This church shows the fire test of Miracle Blocks. In February, 1906, the roof and interior were completely destroyed by fire but the walls were not injured, although deluged with water. A new roof and interior finish made the church as good as ever, as shown by this photo taken April 15, 1908.



M. E. Church, Watertown, Wis.



Church, Port Hope, Canada.



Baptist Church, Emerson, Manitoba. Built by E. Casselman  
Size 40x72 feet. Cost \$10,000.

SEE ALSO  
**LUTHERAN  
CHURCH**

AT  
WATERTOWN, WIS.

on page 5.



# THE OTHER MAN'S SAY SO ON VARIOUS SUBJECTS

## CULVERT FORMS.

David City, Nebr., July 8, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Having witnessed the culvert built in Bone Creek Township over your 4-foot collapsible form and find the cost to be less than \$2.25 per foot, for a 4-ft. Concrete Culvert. We think this is the best culvert on the market, and expect to adopt the same.

NICHOLAS MYRENBURG.  
G. HOOBOCK,  
J. R. EVANS.

David City, Nebr., July 12, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.,

Gentlemen:—You will ship by freight to this point at your earliest convenience, one section of your Collapsible steel forms for building culverts, four feet in diameter and ten feet in length.

By order of the County Board of Supervisors.

NICHOLAS MYRENBURG.,  
Chairman.

Ship to Holland.  
M.J.H.—JKM.

Mt. Pleasant, Iowa, June 17, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Your favor of the 15th at hand, and in reply will say that the forms purchased of you have given perfect satisfaction. We think they are just the thing for building culverts, either in the city or country. I cannot send you photos at this time, but will try and remember to do so in the future, when we have some taken. Parties intending to build culverts will make no mistake in purchasing your collapsible form for quick, economical and satisfactory work.

Yours respectfully,  
JNO. D. DUGDALE.

Mt. Pleasant, Iowa, June 16, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Your favor of recent date is at hand, and in reply beg to inform you that our Collapsible Forms are just dandy. The only thing complained of by our Board, especially Mr. Leach, the kicker, is the price. He will go out of office January first next, and I trust a more liberal man will be installed in his place. If you desire me to send an artist out to the culverts, to take photographs of them, I will do so, and send the bill to you. The last real showy culvert they made is about twelve miles from here.

Respectfully,  
GEO. T. MASON.

Fayette, Mo., May 19, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Your agent Mr. Ferren, came in last week and built two concrete culverts 30" in diameter, and the County Court and myself were well pleased with the work, and I think it is the only way to build a concrete culvert. I also think you have the right man for the place, as he is a gentleman and understands his business. We will keep the forms we have and when Court meets I will send in an order for an 18", 24" and possibly for a 36" form.

Respectfully,  
W. K. GEORGE, Co. Engr.

Mankato, Minn., July 29, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.

Dear Sirs:—Our County Board was so well pleased with the 36" Collapsible Culvert Forms recently purchased from you that they have instructed me to place an order with you for shipment at once, for two 10-foot lengths of the 24" Collapsible Culvert Forms; these to be shipped to Mankato.

Yours truly,  
WALTER F. BROOKS,  
Supt. of Construction.

## MIRACLE BLOCKS.

Waterville, Maine, June 28, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.

Dear Sirs:—Enclosed please find check for twenty dollars (\$20) in payment of bill of June 12th for Block Lifters. We are very busy making the double air space blocks and are selling them as fast as we can produce them, and the people do the looking them up and we fill their orders instead of our hunting for orders. I have been thinking we needed a cut of a Miracle Block for printing bill heads, envelopes, etc. Can you give me any information how I can procure one, and the probable cost?

Thanking you in advance and wishing you success, I am,  
Yours truly,  
EDWIN TOWNE.

Elmer D. Fogle, Contractor and Builder, Linton, N. D.  
Orders for Culvert Forms:

4-26-09.—2 18-inch—10-foot Culvert Forms.  
6-9-09.—2 10 foot—12-inch Culvert Forms.  
6-28-09.—2 24 inch—10-foot Culvert Forms.

Last order by wire. Rush.

## BALL AND BASE MOLDS.

Yazoo City, Miss., July 11, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.,

Gentlemen:—Enclosed please find check for \$17.00 for the Ball and Base Molds that you shipped me some time ago. They work very nice and the finished product looks as good as could be wanted.

Respectfully yours,  
K. C. THOMSON.

## MIRACLE BLOCKS.

Fond du Lac, Wis., July 20, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen: I take this time to let you know that I am very well satisfied with your Block Molds, and am satisfied you have the best on the market. I have got the business started here and expect to have all I can do in another season.

I am somewhat handicapped, as stone and brick are cheap, but I have a good argument selling the Miracle Block, as the frost and moisture proof qualities sell.

Wishing you success in your business, I am,

Yours truly,  
WM. F. BRUETT.

## CULVERT FORMS.

R. F. D. No. 2, Osceola, Wis., July 8, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.,

Sirs:—Enclosed find check for \$86.63, in payment for Collapsible Culvert Forms for the town of Farmington, Polk County, Wis., as per your bill. Your culvert forms are very satisfactory up to the present time.

Yours,  
J. E. DEMULLING.

## SEWER PIPE MOLDS.

Mt. Vernon, Ill., June 20, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.,

Gentlemen:—While Mayor, I bought for this city an 18-inch Tile Mold. After giving it a thorough trial I bought a 12-inch Mold. Both gave entire satisfaction, proved a saving for the city, and provided a better tile than clay which we had been using to the extent of several car loads per year, besides it gave work to men at home. We made up a great deal of this concrete tile, used it in all parts of the city and has proven entirely satisfactory, and the city is now making up a car load of material into tile. I have examined the different makes of molds. Yours I find to be the best, and am today sending you an order for molds for my private use.

With best wishes for your success, Respectfully,  
W. B. WILLIAMS.

## TILE MOLDS.

Murray, Ky., June 16, 1909.

Miracle Pressed Stone Co.,

Gentlemen:—Please ship us two spiders for 16" Tile Mold by express at once. We are selling all the tile that this city is using, also the county. Do this at once. Yours truly,

MURRAY CONCRETE CO.

## BURIAL VAULT MOLDS.

Star City, Pulaski Co., Ind., July 1, 1909.

Miracle Pressed Stone Co.,

Gentlemen:—In regard to our Burial Vaults, will say they are O. K. We have some finished vaults and they are fine. I like your mold very much; makes a very fine vault, and believe us, when people become acquainted with their use, it will be the only way of burial, as there are so many advantages.

There is no doubt as to their selling better than the sectional vault as they are advantageous in every particular. The only drawback here is the undertaker. They want to hold us up for a \$10 on each vault and do nothing, which is only characteristic of the worst trust the American people have to deal with.

W. L. BOTT.

## CULVERT FORMS.

Marlette, Mich., July 5, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.

Dear Sirs:—In reply to your letter of recent date, would say that the Culvert forms I got from you work fine. I can put in a cement culvert just as cheap as wood and much better. I will enclose my private account of two culverts I put in. I would like to have the agency for your goods for another year. Have distributed your literature with most of the Highway Commissioners, and they all liked the forms all right, but had bought their culverts for this year.

Now, as to the Tile and Brick Molds, I expect to send you an order within a few days for some Tile Molds, also a Brick Machine, and would like to know what terms, if any besides cash, I can offer on these goods.

Yours truly,  
J. W. RICHARDS



Nolin, Ky., March 23rd, 1908.

Miracle Pressed Stone Company,  
Minneapolis, Minn.

Gentlemen: -

The outfit bought of you by me was received in due time and in good condition. I set it up this morning and made some sample blocks. It works to perfection.

Please to find enclosed 50 cents in stamps for which send me cut like enclosed copy, as per your letter of the 13th inst.

What would be your price on an outfit to make window and door sills and headers. I will have to get one of them this spring.

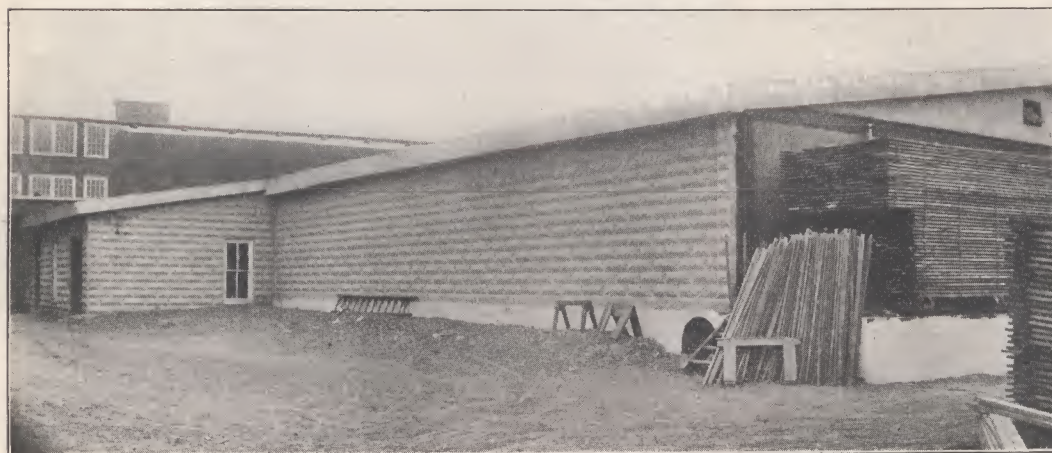
Wishing you success, I am,

Very truly yours,

W. W. TABB.



Fox River Packing Co., Aurora, Ill.



Dry Kiln, Manitowoc, Wis.

Palatka, Fla., April 21, 1908.  
Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:

Will you please send me one of your catalogs? I have been and am superintending the plant at Palatka (your Exhibit "A" machine). Have put up a nice business block, and am now making stone for a church. I made several thousand stone and shipped them to Lake Benton, and am superintending the building. There is another machine here, but the Miracle has put it out of business as far as building blocks go. We are using your brick machine, and are making a fine brick. Yours truly,

(Signed) O. HAMMOND,  
Palatka, Fla.

Anamoose, No. Dak., Dec., 30, 1905.  
Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:—This residence was built of Miracle Concrete Blocks made by ourselves and for the occupancy of W. D. Frankhauser, but is not completed, as you will see on the picture, the cornice not on and the finish of the inside not complete. It is 25 by 39 feet with the bay window running full height. It contains a basement of the full size. There has been a hot water plant installed with ten radiators. There is a cistern with 160 barrel capacity and a well with windmill, which pumps water into a fifteen barrel tank in the attic. The house is fitted with a bath room and has hot and cold water throughout, together with a complete sewer system, which makes it as modern a house this side of the Twin Cities as we know of. The upper floor is finished in fir and pine, while the first floor is finished in red oak. As regards frost, as soon as we had the hot water plant in operation, we noticed no frost whatever on the walls, and find the house to be the warmest we have ever lived in, notwithstanding that we have no storm windows on at the present time.

Respectfully,

(Signed) FRANKHAUSER BROS.



Rogers & Co., Rendering Works, Aurora, Ill.



Syracuse, N. Y. March 4, 1908.  
Mr. A. S. Wemple,  
Eastern Sales Manager,

Dear Sir: In regard to our experience with the Miracle More Money Molds, I am pleased to state, that some three years ago we launched our outfit, Model A, and have been turning out a first class block and in large quantities ever since and our molds are in good order and in condition to turn out many thousands more.

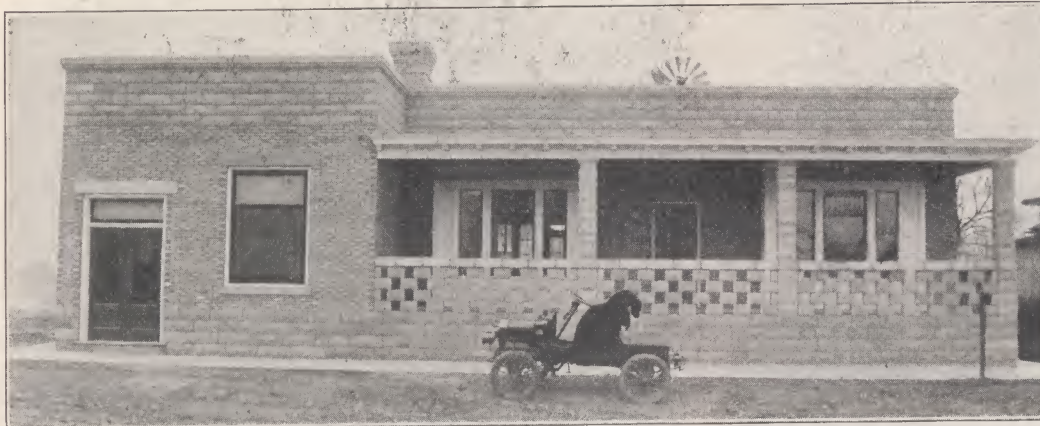
With four men I am turning out 225 blocks per day, 1350 per week, and we do not work over eight hours per day. Our block meets with the warmest reception wherever exhibited, and if some other concern is not in on the ground floor with some special pull, we usually land the contract. Our Jamest St. school is considered the finest block job in this part of the country.

Wishing you the success which you so thoroughly deserve, I am,

Yours very truly,  
EDWIN C. IDE, Manager.  
Onondago Pressed Stone Block Co.,  
Syracuse, N. Y.



Flat Building, Lincoln, Neb.



Bank and Residence, Wm. McFarlane, Blencoe, Ia.

#### IOWA STATE COLLEGE AGRICULTURE AND MECHANIC ARTS.

Civil Engineering Department.  
Ames, Ia., Sept. 28, 1904.

H. L. Munn & Son, Ames, Ia.  
Gentlemen:—The following are the results of the crushing tests of the Miracle Concrete Building Block sent out by you some time ago. Specimens used were half blocks. They were imbedded in Plaster of Paris and allowed to set in the testing machine for 12 hours.

Specimen.	Size of Specimen	Area Crushed, Square inch.	Ultimate Load.	Ultimate Bearing Strength, Tons per.
A	8x9x13	117	70,500	43.3
B	8x9x12	108	89,000	59.3
*C	8x9x12	108	101,000	87.3
*D	8x7x12	84	101,000	86.6

Specimens \*C and \*D failed to crush at full power of the machine, 101,000 pounds.

Block A was one week old, Block B two weeks old, C three weeks old, and Block D was four weeks old, when they were sent out to be tested.

Very truly yours  
T. H. MacDONALD.

#### FACTOR OF SAFETY OF TWENTY

This shows by using an 8x12x24 in. regulation size MIRACLE Double Air Space Block in a wall of an 8-story building estimating the weight of the wall and the maximum floor load you have a factor of safety of 20—an excess of 15. As architects and building laws require a factor of safety of only 5, the Miracle Wall would have four times the amount required.



Office and Residence, Dr. A. Healy, Middlesboro, Ky.

Sterling, Colorado, May 4, 1907.  
Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:—We have in active use your Block, Brick and Tile Machines, and they are entirely satisfactory in every respect.

We have other machines which have not proven satisfactory, and which we have discarded.

We consider your machines the best and most practical of any on the market.

Yours respectfully,  
Sterling Cement Construction Co.,  
By Wm. Kaepernik.

March 31, 1908.

Please ship at once  
1—10 in. Tile Mold  
1—12  
1—10 " Top Ring  
1—12  
20—10 " Bottom Rings  
20—12 "

WM. KAEPERNIK,  
Sterling, Col.



Westfield, N. J., May 6, 1907.

Messrs. Arthur N. Pierson & Co., Eastern Agents Miracle Pressed Stone Co., No. 1 Park Row, New York City.

Gentlemen:—In reply to your inquiry as to how I am getting along in the manufacture and sale of Miracle Blocks, would say that I have had no difficulty in disposing of my entire production, in fact last fall when I closed for the winter season, I had on hand about 7,000 blocks and sold them all in about 3 weeks' time and could have sold as many more if I had them in stock; not having them, I was of course obliged to turn down the orders. I wish I had 10,000 or 15,000 blocks on hand now to start my spring business with, as I am behind on my orders and the prospects for future business is certainly very good.

I anticipate putting up a building to make blocks in this winter, in order to make blocks the year round. The Miracle Block is the only one used in this section, although there are several others who have tried to get in here, but the builders appreciate the merits of the Double Air Spaces, and are willing to pay more than for the single air space blocks.

Yours truly,

E. F. GILBY.



Spokane, Wash.



Vancouver, Wash.

Clay Center, Kan., Dec. 9, 1906.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Enclosed please find \$2.25 for which please send me a book of plans and your book on the uses of cement. I also want a cut of the rock face block for advertising purposes. Do you have it, and at what price?

Since purchasing your machine a year ago, I have been keeping it busy, and am free to say it has given entire satisfaction, and is more than you claim for it. I expect to have another order for you in the near future.

Yours respectfully,

L. L. LONG.

Central City, Ky., April 6, 1907.

The Miracle Pressed Stone Co.,

Minneapolis, Minn.

Gentlemen:—We take pleasure in stating to you that we believe that we hold the record on block making with your machine. We average about 150 twelve inch blocks per nine hours. On April 4th we made 170 12x24 inch blocks in 8 hours and 30 minutes, working four men. We expect to put out, on an average, 150 twelve inch and 200 nine inch blocks each day with crew of seven men.

Your machine has certainly built us up a nice business and is satisfactory in every respect.

Yours truly,

CENTRAL CONCRETE CO.,

Per T. Q. Fortney

Fortney & Fortney,

Central City, Ky.

Kindly fill the following order:

1 Ten-Brick Machine complete with all fancy plates.

1 Ex. C. Porch Column outfit.



Bank Building, Vancouver, Wash.





Furniture Store, Decherd, Tenn.

J. W. Bowen.

G. H. Wortendyke.

ERIE PRESSED STONE BLOCK COMPANY

Manufacturers of the Miracle  
Double Air Space  
Concrete Building Blocks  
FROST AND MOISTURE PROOF

Plant

Bowmansville,  
N. Y.

Buffalo Office 333 Elk St., June 3, 1908.

Miracle Pressed Stone Co., Minneapolis, Minn.

Dear Sirs:—We are getting along in fine shape; have put the single air space people at a standstill in Bomansville; have just secured another contract for a cottage, and have got nicely in operation and can see business coming our way. We can't help it for we have got the only building block.

I wish you would write me up or suggest a good local add, arrange it so I could use my cut of the block.

Yours very truly,  
GEO. H. WORTENDYKE.

NOTE—The Miracle Pressed Stone Co., will gladly furnish free to our customers, suitable sample advertisements prepared by an experienced advertising man.

"DOUBLE AIR SPACE KILLS COMPETITION."

Saskatoon, N. W. T., May 25, 1906

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Miracle Blocks can be manufactured and placed in the wall at a small cost as compared with the old style two-man block, while the Double Air Space feature of the "Miracle" practically kills competition. We are turning out from 225 to 275 blocks per day of ten hours, and every block perfect. We are well satisfied with the "Miracle Machine."

Yours, The Saskatoon Cement Block & Construction Co., Limited.

Saskatoon, N. W. T., March 22, 1907.

Kindly make prompt shipment of the following:

- 1 Broken Ashlar plate
- Full attachment for making 8" and 16" rock face blocks on Exhibit "A."
- 1 Exhibit "B" outfit less interior angles.
- 3 Regular Block Lifters
- 3 16" Block Lifters

Saskatoon Cement Block Co.,

Saskatoon, N. W. T., March 30, 1907.

Ship us by express at once

- 1 Cornice plate bent to radius of 5'-2'
- 1 Freize plate bent to the same radius.

Saskatoon Cement Block & Construction Co.



Frankhauser Bros., Anamoose, N. D.



Store Building, Leeds, N. D. Built by Ole Moe.

Size 50x135 feet. Total cost \$20,000. This cost includes entire finishing of the highest order. The photograph does not do the building full justice as it was taken before fully completed.

Thief River Falls, Minn., June 9, 1907  
Miracle Pressed Stone Co.,

Minneapolis, Minn.

Gentlemen:—We never had trouble with walls leaking at the joints, as we see to it that good mortar is used and all the joints well filled.

Cement Building Blocks are certainly all right, especially the double air spaced, but they must be made right and cured right. That has been our whole aim, and we have had good success, and all the buildings we have put up have given good satisfaction.

We have both the single and double air spaced machines but use only the Miracle's Double Air Spaced for buildings of all kinds.

Trusting that you are enjoying a nice business this season and wishing you continued success, we are,

Yours very truly,

Thief River Falls Cement Brick Works,  
A. S. FASEL, Manager.



Altamont, Ill., Nov. 29, 1907.

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:

I will send you three views of the first block house in Altamont, built by H. H. Bailey, Editor and Publisher of the Altamont News. You will see what he says about the blocks. He is well pleased. The house has a slant roof and a fine finish on the inside and everybody that sees it thinks it is a very nice building. The blocks for this house were made by Chas. H. Seibert, Altamont, Ill., on a Miracle machine.

I commenced the first of April making blocks and was busy with two men all summer. I made two houses and twelve or fourteen foundations and have a good supply on hand for spring trade.

(Signed) CHAS. H. SEIBERT.



7-28-07.

Mr. O. U. Miracle,  
Minneapolis, Minn.

Dear Sir:

Your personal letter to hand and noted. I sent for your catalog because I wanted to see more about your MIRACLE blocks. I have had two stores built out of your Miracle block by the Albany Pressed Stone Co., and am well pleased with the work, as the rock face makes such a pretty front to my building. Miracle Block walls, cement tile floors, steel ceiling, tin roof makes my stores almost fire-proof and had it built Two hundred dollars cheaper than I could have had it built of Brick with wood floor and ceiling.

So you will see why I wanted your catalog.

Respectfully,

C. W. SCOTT,  
Albany, Ga.



Nov. 28, 1907.

#### TO WHOM THIS MAY CONCERN:

This is to certify that after careful study and thorough examination, we decided to build our residence with the Miracle Double Staggered Air Space Block. We are highly pleased with the result. This block is cheaper, than lumber (at least one hundred dollars), warmer, by far more durable, and absolutely moisture proof. Any inquiries will be cheerfully answered.

(Signed) H. H. BAILEY,  
Editor and Publisher  
The Altamont News.





Richmond, Va., April, 26, 1908.  
 Miracle Pressed Stone Co.,  
 Minneapolis, Minn.

Gentlemen:—In answer to your letter of the 22nd, I beg to say that I am getting along fine with your machine, and having the best of success. We are very much pleased with the machine, and we expect to do a fine business here.

Yours truly,  
 (Signed) GEO. E. GRAY,  
 Richmond, Va.



Residence at Auburn, Neb.

### FROM MISSOURI.

Bethany, Mo. May 6, 1907.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gents:—I will say the Cement Block Machines I purchased of you are giving entire satisfaction. The Mixer is just the thing and does the work much better than can be done by hand. The machines are very simple in construction and at the same time are durable and easily managed. After a thorough study of the subject I regard the Miracle Double Air Space Block as the only perfect and reliable one on the market. There are so many blocks, which, in order to secure the proper air circulation have to sacrifice strength and durability to get it. Yours obviate all such objections as they are strongly made and are absolutely frost and moisture proof, which are two very essential qualifications in a first class cement block.

Respectfully, J. H. FRIEND,

Kindly forward to us at once  
 1 Miracle Block Car.

March 27, 1907.

J. H. FRIEND, Bethany, Mo.

Please ship us at once  
 1 Concrete Lawn Vase Mold  
 1 7" Ball and Base mold.

May 16, 1908.

J. H. FRIEND, Bethany, Mo.



Residence of Mr. Perine,  
 Fulton, N. Y.

Claremont, N. H., June 4, 1907.  
 Miracle Pressed Stone Co.,  
 Minneapolis, Minn.

Gentlemen:—We enclose herewith an order for exhibit "M. A." molds and machine complete, also exhibit "G" for sills and caps and reveal mold for box windows.

We have formed a company and called it Claremont Cement Block Co. Please ship outfit by freight to that address. This company is formed of D. H. Cushion, E. F. Cushion and W. D. Elmer.

Yours very truly,  
 CLAREMONT CEMENT BLOCK CO.

Claremont, N. H., April 28, 1908.  
 Miracle Pressed Stone Co.,  
 Minneapolis, Minn.

Gentlemen:—Please send us the balance of outfit "A" and a 9 inch base.

Yours very truly,  
 CLAREMONT CEMENT BLOCK CO.  
 D. H. Cushion, Treas.



Residence of Mrs. T. B. Stephens, Bunceton, Mo.



Union, Neb., May 31, 1907.  
 Miracle Pressed Stone Co.,  
 Minneapolis, Minn.

Gents:—I have been using the Miracle Cement Block Machines and mixer for the past three years, and wish to say that they give good satisfaction in every respect. Have put up several buildings of the blocks, and they are very satisfactory in every respect. For foundation work I sell nothing else, although not 100 feet from my plant there is a quarry of natural stone. My patrons find the blocks more satisfactory by far than the native stone or brick, and much cheaper in the wall. I have a demand for all the blocks that I can turn out, and would not think of getting along without my block machines, as they make a valuable adjunct to the lumber yard. I can willingly recommend the Miracle process to anyone contemplating purchasing a Cement Block outfit.

Very respectfully,  
 W. B. BANNING.



Frank Richards, Mineral Wells, Texas

IT IS BEST.

Lexington, Neb.

Miracle Pressed Stone Co., Minneapolis, Minn.

I wish to state that in all cases where quality, appearance and a perfect wall is desired, I find no trouble in getting 5c per block more for the double air space blocks than my friends with a single air space offer theirs, weight and quality being the same. I get about 15 per cent. more for double air space blocks than can be had for single ones. With a mixture that closes all of the voids, there is no trace of moisture on the inside of the wall and no frost spots marking the location of the voids between the various parts of the block. Just yesterday I was in a building having a 12-inch wall built from two-piece blocks, and as there is no internal heat in the building the bonds across the wall could be located by the spots of frost.

I consider your mold much faster in operation than any Automatic Machine in existence to-day, as I have owned one self-closing Automatic Machine.

As for speed I can surpass any automatic made for a ten hour run on 24x8x9. I can build any wall and never cut a block. Three men, a mixer and 2-horse power engine make 200 in ten hours, 78-pound blocks.

(Signed) ROBT. B SMITH.



Residence at Aurora, Ill

McCook, April 15, 1907.  
 Miracle Pressed Stone Co.,  
 Minneapolis, Minn.

Gentlemen:

Last May your Exhibit "A" was installed in our works and has been in constant use since. We have the "Hydraulic" and "Peerless" that we were using up until the installing of the "Miracle". We are using it "Exclusive" and are satisfied with it in all ways. Think there is nothing as good as the Miracle.

Very truly yours,  
 McCook Cement Stone Co.



Aurora, Ill.





Residence, Vancouver, Wash.

Hillsboro, Wis., April 22, 1907.

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:—Replying to your inquiry regarding Miracle Molds and the business in general, will say that I have a good bunch of contracts booked with nice prospects for more, notwithstanding the fact that the people are not acquainted with concrete products in the locality.

The molds are working good and the general public favor the Double Air Space Block.

Respectfully, THEO. W. S. COLLINS.

Repeat order from Theo. Collins, 6-6-'07.  
Hillsboro, Wis.

1 Exhibit F., 1 9-in Exhibit with plain and ashlar faces and Water table attachments. 1 Ashlar face Exhibit B., 1 Miracle One man Brick Machine.

Chippewa Falls, Wis., May 29, '07

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:—In response to your favor, would say that we have made up a great quantity of your blocks. Our experience with them is not extensive, but we have begun to lay them in our new buildings, and our mason's report on them is very favorable. We are now working three machines of your make.

Yours respectfully,

C. W. WILMARTH.

Superintendent



Residence, Vancouver, Wash.

Mitchell, Neb., May 5, 1907.

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gents:—We have just completed a Cement Stone Store Building, 75 foot frontage and 140 feet long. The main part of the store has been up over a year and we have our first complaint yet to make. The Miracle Block is the only block on the market that will stand plastering on the base stone, and resist the frost and moisture.

If we were to build another building, this is the only Block we would use.

Yours truly,

RAYMOND & QUIVEY

12-20-'07.

Repeat order from Theo. Collins,  
Hillsboro, Wis.

Kindly enter our order at your lowest cash price for 2 Block Cars, 200 feet rail.

2-13-'08.

1 Silo attachment for Exhibit "A" for silos 12' 6" inside diameter, 9" Block.

5-5-'08.

Repeat order from Theo. Collins,  
Hillsboro, Wis.

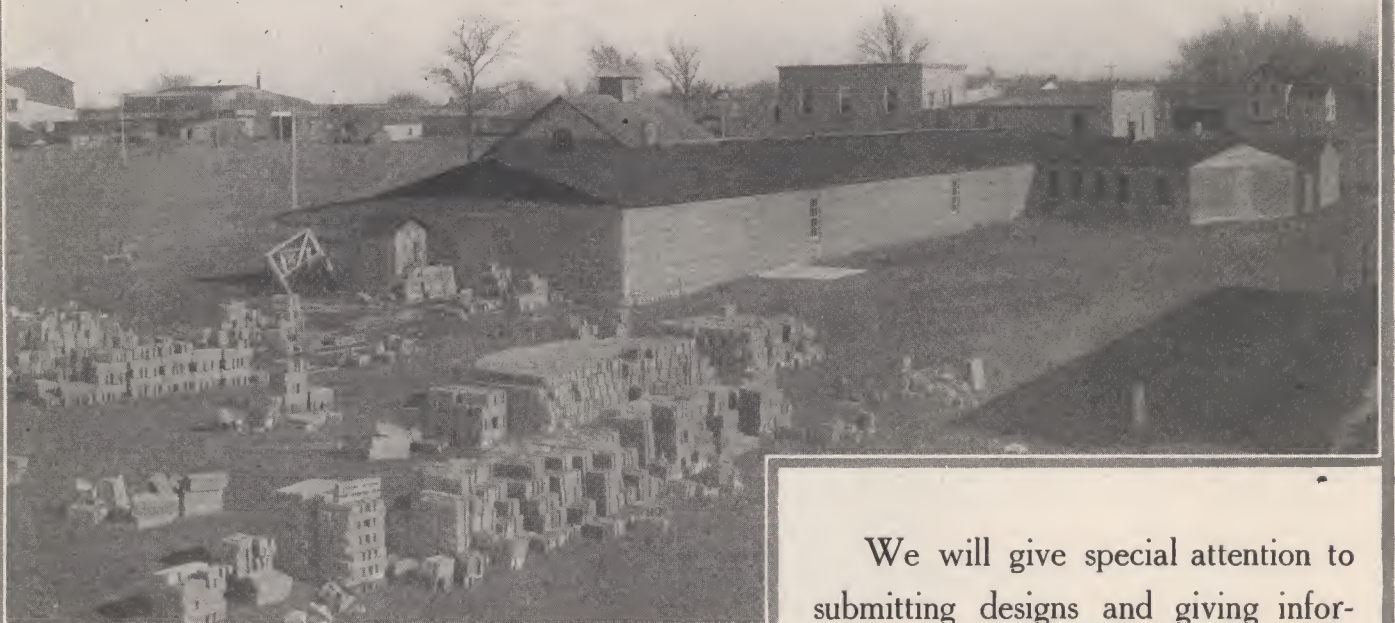
Ship us 1 adjustable Cap Step and Sill Mold.



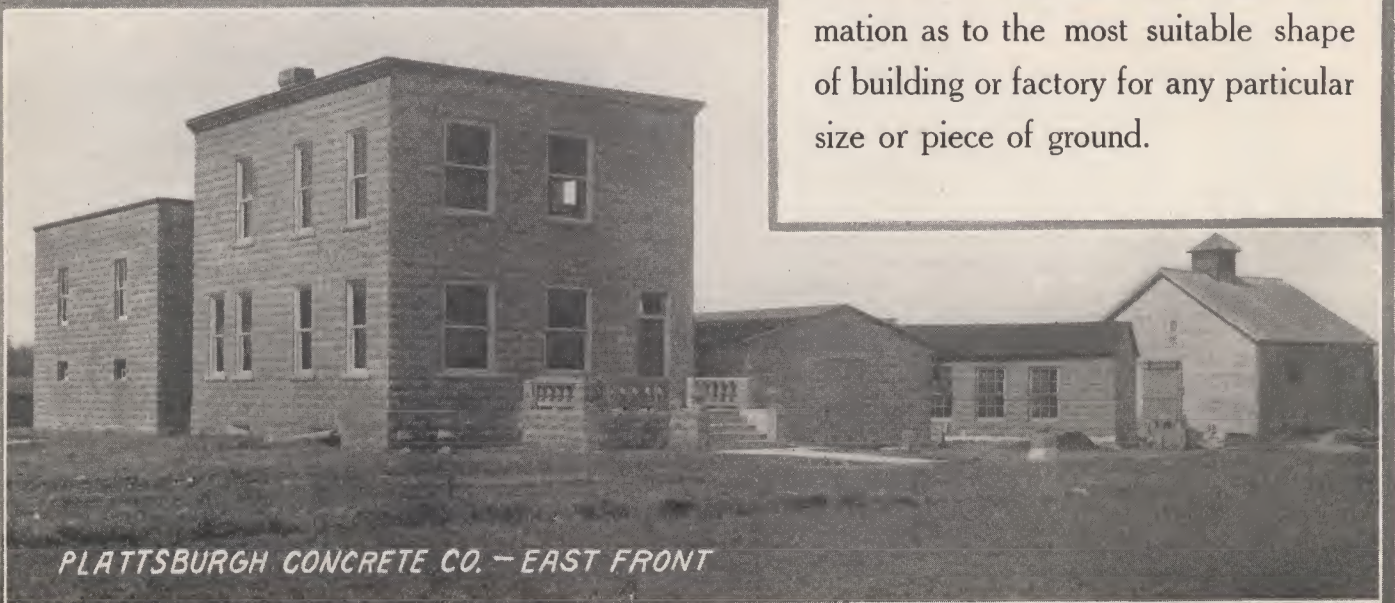
# THE MIRACLES IN THE EAST



*PLATTSBURGH CONCRETE CO. — WEST SIDE VIEW*



We will give special attention to submitting designs and giving information as to the most suitable shape of building or factory for any particular size or piece of ground.



*PLATTSBURGH CONCRETE CO. — EAST FRONT*



# The MIRACLES in the WEST



The Plant here illustrated, is constructed and operated by Colonel Lee Stover, Watertown, S. D. This is one of the pioneer block facories of the West, and Mr. Stover has built this business up until he now is employing a large crew of men in his plant, and during the last season ran day and night. He is also at present engaged in the general construction business, using in the past season twelve different crews scattered throughout the Northwest. All of this shows what energy will do in the Concrete business.







Foundry, Office and Pattern Room, Danbury, Conn.

Paxton, Ill., Jan. 21, '08.  
Miracle Pressed Stone Co., Minneapolis.

Dear Sir:—I intended to write you before, but I never got around to it.

We moved into our new home Dec. 23d '07 and are becoming better pleased with it the longer we are in it. One thing we have found out and that is we burn a whole lot less coal than we ever did in a frame house. When we were making the blocks I had several people ask me in surprise if we were going to build our whole house of blocks. They had an idea it would be damp. Well it would have been if we had made our blocks like the other manufacturers in this town are making theirs. But we haven't noticed any dampness and it is only a few hours after a rain when the outside of our house is dry while the other blocks take about a week to dry out. I was up to Watseka a few weeks ago and saw a block house up there made out of blocks made on a (——) machine. It had rained a few days before and the house was still wet. Everybody thinks my blocks are the best they ever saw and I believe I will be able to do a good business this year.

Say I'd like to have one of your new catalogues with a description of your new machine. I saw the picture of it in the Cement World. Thanking you for past favors, I am,

Yours respectfully,  
FLOYD E. STRINGER.



Foundry, Danbury, Conn.



McDonald Garment Factory, Maryville, Mo.

Incorporated

## The Marshville Pressed Stone and Brick Co.,

MANUFACTURER'S OF  
CEMENT BLOCKS AND BRICK.

Capital Stock \$8,000.00

Marshville, Wis., April 28th, 1908.  
Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:—Please be so kind and send us the balance of Exhibit "A" for One Hundred Dollars as per agreement of last spring when I bought the first part of Exhibit "A". Also send us 40 lbs. of the Medusa Compound for \$4.80. Please be so kind and ship as soon as possible. We are in need of the above mentioned.

Respectfully,  
AUG. J. KIPPENHAHN, Sec'y.

Ordered part of Exhibit "A" in April 1907.  
Was successful and ordered balance of Exhibit "A" April 28, 1908, as per above.

Tucson, Arizona, Feb. 17, 1907.  
Miracle Pressed Stone Co.  
Minneapolis, Minn.

Gentlemen:—

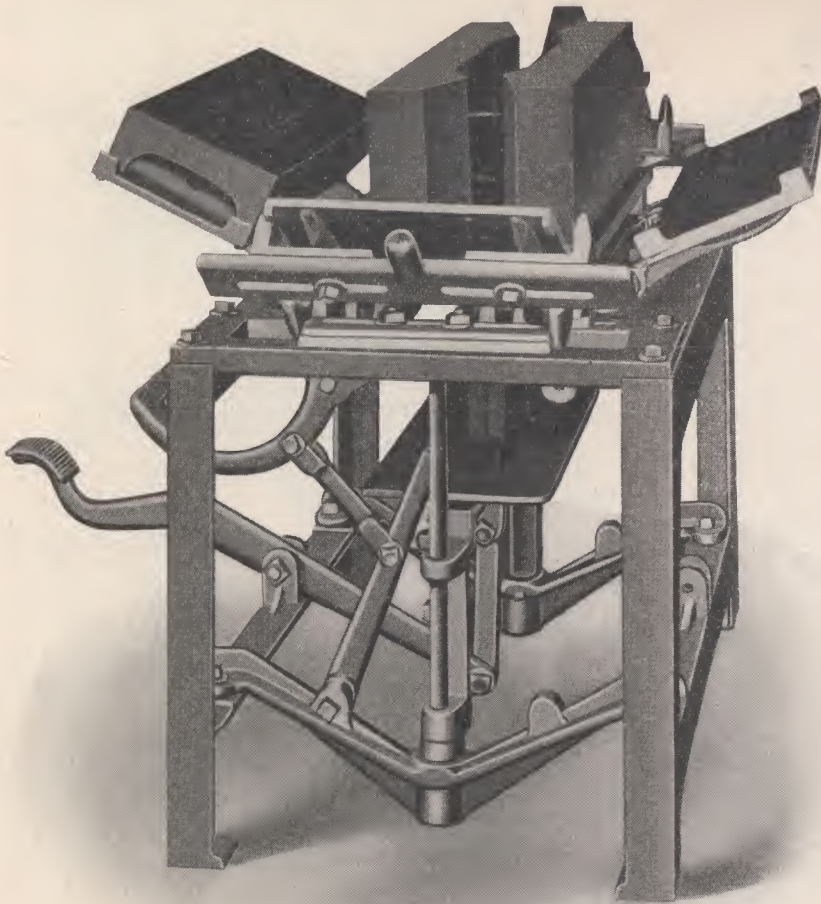
Your cube mixer mounted on trucks with engine, brick machine and sewer pipe molds have arrived, and gives perfect satisfaction. Have had experience with several concrete mixers but the "cube mixer" surpasses them all.

Your brick machine does more than you claim for it. Two men at the machine turned out 1000 perfect brick in two hours and 20 minutes. Made 15. ft of 8 inch sewer pipe in 1 hour and 30 minutes. Have a contract for several hundred feet. Please ship us your double air space block machine at once.

Very respectfully,  
LUNS福德 & WAKEFIELD  
Tucson, Arizona.



# Miracle Combination Two - Piece or Continuous Air Space Block Machine



There is a big demand for concrete blocks that are absolutely frost proof and moisture proof, and no block answers this purpose any more certainly than the Continuous Air Space Block.

Our machine, designed for this purpose, is rapid, strong and durable, and all parts are perfect and interchangeable. The machine is built along lines similar to our Double Air Space Drop Core Model Machine, and embodies many of its superior mechanical features, which include the hand trip and foot power mechanism for raising and lowering the cores, as well as hinged sides and ends. Its operation is simple and very rapid.

This machine will make either a Continuous Air Space Block—the walls being tied together with wire ties—or by removing the end cores, we have a very simple machine for making Single Air Space Blocks.

Like all other machines of Miracle design, this machine makes blocks 6", 12", 18" and 24" long, 8" high, and either 9", 12" or 16" in width, in both straight and corner blocks.

Any adjustments, such as change of width or change of face plates are made with ease and rapidity. The capacity of the machine is only limited by the ability of the men who handle the material. It is a Miracle quality machine throughout.

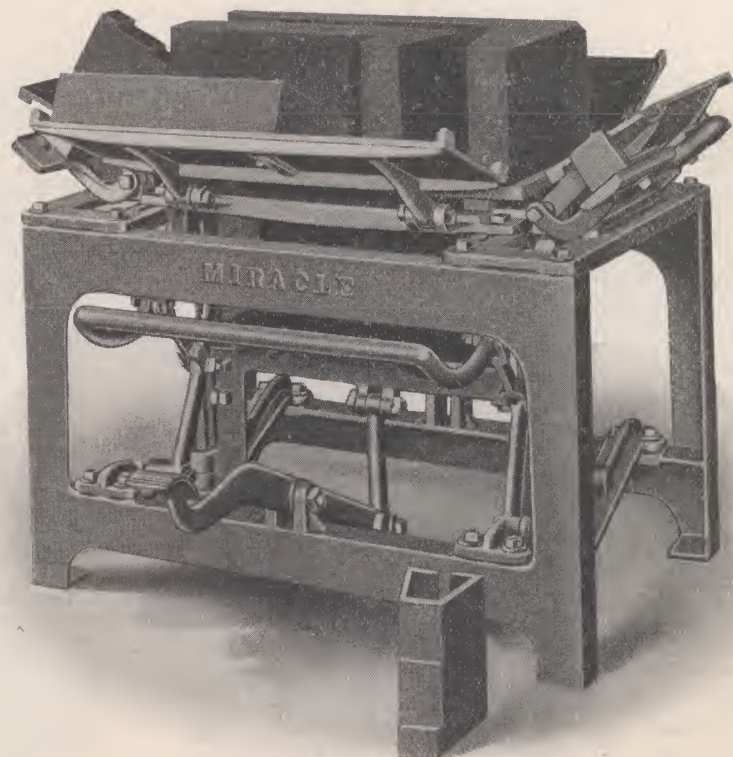
The metal ties, which are essential in the construction of a two-piece block, rest on the offsets of the dove tailed core, and are held firmly in place by the weight of the end core, preventing their extending further into one half the block than the other, and resulting in a thorough and complete bond.

We can furnish a great variety of designs with this machine. The parts included in our regular equipment for making 9" and 12" widths, rock and plain face designs are as follows:

- 1 Stand complete with large core and end fillers for continuous and single air space blocks, and return corners.
- 1 Rock face plate for 24" blocks.
- 1 Rock face plate for 2—12" blocks.
- 1 Rock face plate for 6" and 18" blocks.
- 1 Rock end plate for return corners.
- 1 Plain face plate for 24" blocks.
- 1 Plain face plate for 2—12" blocks.
- 1 Plain face plate for 6" and 18" blocks.
- 1 Plain end plate for return corners.
- 1 Plain back plate.
- 2 Plain end plates with rib for 9" and 12".
- 1 Filler for 9" straight block.
- 1 Filler for 9" corner block.
- 1 Pallet rest.
- 2 Iron Tampers.
- 2 Each—9" and 12" Division plates.
- 1 Hopper.

**PRICE COMPLETE, \$100.00.**

Write for prices on hammered, panel, broken ashlar, water table and wreath belt plates.





# MIRACLE ADJUSTABLE FACE-DOWN BLOCK MACHINE.

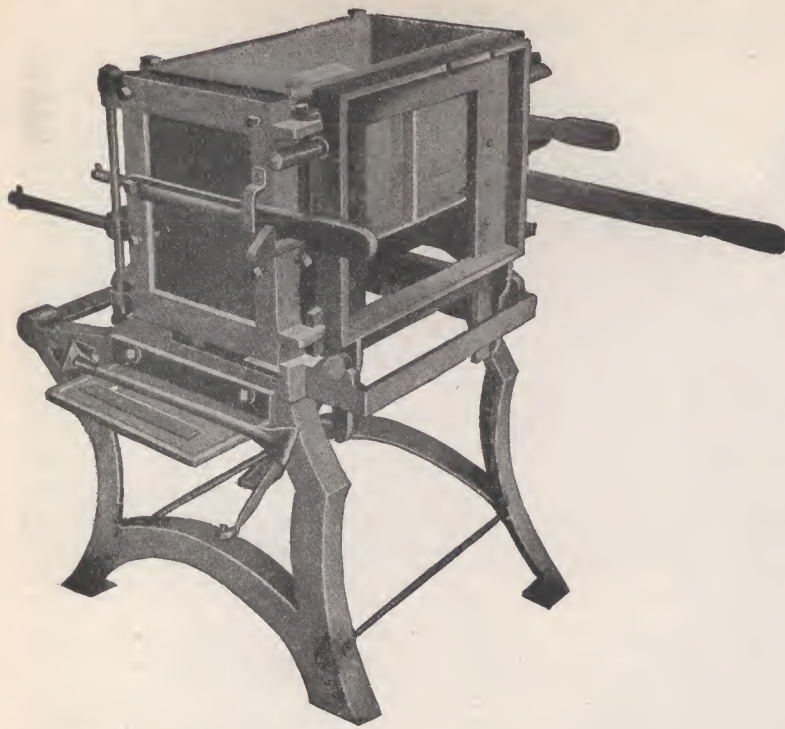


Fig. 1.

also veneer or Two-piece blocks 2x8x16, 4x8x16 and 6x8x16 complete with rock and plain designs.....\$74.00.

- 1 Plain Front Design No. 2.
- 1 Plain Front Design No. 2L, for making one-half and two-quarter hollow blocks.

- 1 Right Hand Plain End Door Design No. 23.
- 1 Left Hand Plain End Door Design No. 23.
- 1 8-inch Right Hand Rock End Door Design No. 21.
- 1 8-inch Left Hand Rock End Door Design No. 21.
- 1 10-inch Right Hand Rock End Door Design No. 21.
- 1 10-inch Left Hand Rock End Door Design No. 21.
- 1 12-inch Right Hand Rock End Door Design No. 21.
- 1 12-inch Left Hand Rock End Door Design No. 21.
- 1 Right Hand End Plate with recess to core end of 8x8x16.
- 1 Left Hand End Plate with recess to core end of 8x8x16.
- 1 Right Hand End Plate with recess to core end of 8x10x16.
- 1 Left Hand End Plate with recess to core end of 8x10x16.
- 1 Right Hand End Plate with recess to core end of 8x12x16.
- 1 Left Hand End Plate with recess to core end of 8x12x16.
- 1 Right Core for 8x8x16.
- 1 Left Hand Core for 8x8x16.
- 1 Right Hand Core for 8x10x16.
- 1 Left Hand Core for 8x10x16.
- 1 Right Hand Core for 8x12x16.
- 1 Left Hand Core for 8x12x16.
- 1 Back Frame adjustable for cores either 8, 10 or 12 inches wide.
- 1 Right Hand Back Frame Space Closer for making blocks 10 and 12 inches wide.

1 Left Hand Back Frame Space Closer for making blocks 10 and 12 inches wide. (These two Space Closers are not used for making blocks 8 inches wide.)

- 1 Front Frame.
- 2 Division Blades for 8x8x16 half and quarter.
- 2 Division Blades for 8x10x16 half and quarter.
- 2 Division Blades for 8x12x16 half and quarter.
- 2 Strippers for blocks.
- 1 Adjustable Plate for making plain gable blocks.
- 1 Steel Striker.
- 1 Concrete Block Carrier with handles.
- 1 Flat Square End Concrete Block Tamper.
- 1 Cast Iron Pallet for 8x8x16.
- 1 Wood Pallet for 8x8x16.
- 1 Cast Iron Pallet for 8x10x16.
- 1 Wood Pallet for 8x10x16.
- 1 Cast Iron Pallet for 8x12x16.
- 1 Wood Pallet for 8x12x16.
- 1 Right Hand Joist Block Plate.
- 1 Left Hand Joist Block Plate for blocks.
- 1 Steel Plate for forming inside corners of 8x8x16, 8x10x16, and 8x12x16 hollow blocks.
- 1 "5" Wrench.

If the rock and plain sets of designs are not wanted, we will give the buyer his choice of any other two sets of designs that we have, in place of the rock and plain sets shown in above list, otherwise the designs we illustrate are extra. Front 8x16 designs cost \$3.00 each and any end design \$1.50.

Six widths 2-4-6-8-10-12 inches.  
Three Lengths 4-8-16 inches.  
Two complete Sets Face Plates; Your Choice. (See page 30)  
(One Rock and One Plain Face furnished, if not otherwise specified.)

PRICE \$74.00 COMPLETE

F. O. B. Factory at per following lists of parts.

Points of Merit that place this machine ahead of other Face Down Block Machines:

More complete for half the money.  
Well-made—Simple—Rapid.  
A one man machine.  
The only machine adjustable for making Veneer—partition, sidewalk and hollow building blocks.  
Operator does not have to move out of his position in front of the machine from the time the tamping is begun until the block is finished. (See arrangement of core lever and end door handles.)  
Fig. 1 and Fig. 2 showing machine open after block is made.  
No cogs. No gears. Cores are mounted on steel shaft and do not rub on back plate when withdrawing them.  
The 8x8x16 block costs to manufacture from 5 to 7c.  
Sells for 15c or more.  
Equals 15 brick which would cost at \$12.00 per M laid in a wall 18c.

## "B" EQUIPMENT FOR ADJUSTABLE 16-INCH FACE DOWN MIRACLE CONCRETE BLOCK MACHINE

For making hollow blocks 8x8x16, 8x10x16, 8x12x16;

(PALLET EXTRA.)

- 8x16 Cast Iron Pallets 25c each or \$25.00 per hundred f. o. b. factory.
- 10x16 Cast Iron Pallets 30c each or \$30.00 per hundred f. o. b. factory.
- 12x16 Cast Iron Pallets 35c each or \$35.00 per hundred f. o. b. factory.

We can furnish an iron pattern pallet all ready for the sand at \$5.00 per width, so you can secure pallets at your nearest foundry.

Circle or Silo Block designs, any radius, are \$3.00 each, extra.

The Octagon Bay Window Attachment for blocks 8, 10 and 12 inches wide furnished complete for any one style of design at \$4.00, \$5.00 and \$6.00 respectively.

The Miracle Machines make a block that allows for  $\frac{1}{4}$  inch Mortar Joint.

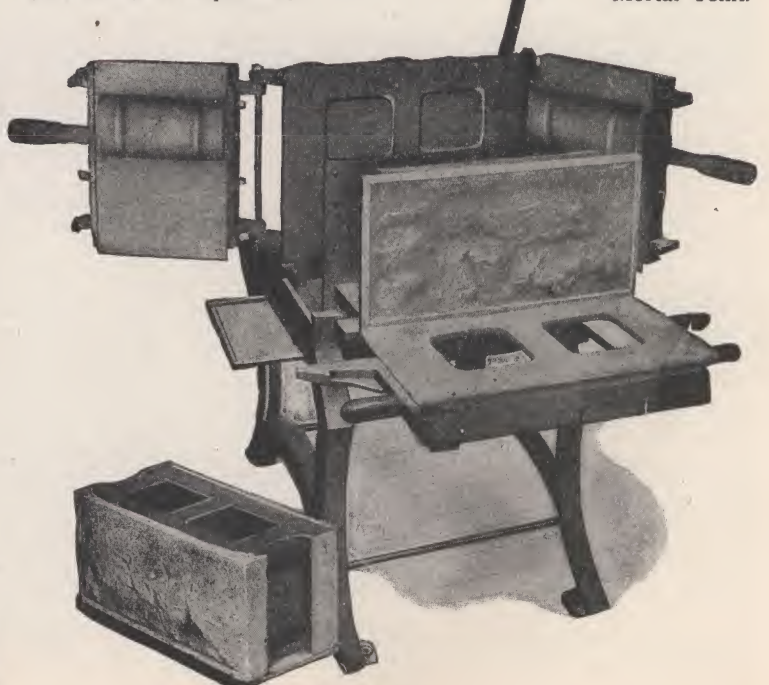


Fig. 2.



# MIRACLE ADJUSTABLE FACE-DOWN BLOCK MACHINE.

(Continued.)



Fig. 3

## “C” EQUIPMENT FOR ADJUSTABLE 16-INCH FACE-DOWN MIRACLE CONCRETE BLOCK MACHINE

For Making Hollow Blocks 8x8x16 Inches and 8x10x16 inches, also Veneer or Two-Piece Blocks 2x8x16, 4x8x16, 6x8x16 inches.

**\$64.00.**

- One Plain Front Design No. 2.
- One Plain Front Design No. 2L, for making one-half and two-quarter hollow blocks.
- One Right Hand Plain End Door Design No. 23.
- One Left Hand Plain End Door Design No. 23.
- One 8 inch Right Hand Rock End Door Design No. 21
- One 8 inch Left Hand Rock End Door Design No. 21
- One 10 inch Right Hand Rock End Door Design No. 21
- One 10 inch Left Hand Rock End Door Design No. 21
- One Right Hand End Plate for 8 inch blocks
- One Left Hand End Plate for 8 inch blocks
- One Right Hand End Plate for 10 inch blocks
- One Left Hand End Plate for 10 inch blocks
- One Right Hand Core for 8x8x16
- One Left Hand Core for 8x8x16
- One Right Hand Core for 8x10x16
- One Left Hand Core for 8x10x16
- One Back Frame

## ADJUSTABLE FACE DOWN “D” EQUIPMENT.

We also furnish a machine for 8 and 4 inch widths of stone with two sets of face plates

**For \$54.00 F. O. B. Factory.**

Five Widths 2, 4, 6, 8, 10 Inches  
Three Lengths 4, 8, 16 Inches  
Two Complete Sets Face Plates, Your Choice, See Page 76.

Rock and Plain Face Furnished unless Otherwise Specified.

**Price \$64.00 Complete.**

F. O. B. Factory as per Following List of Parts:

- One Right Hand Back Frame Space Closer
- One Left Hand Back Frame Space Closer
- One Front Frame
- Two Division Blades for 8x8x16 half and quarter blocks
- Two Division Blades for 8x10x16 half and quarter blocks
- One Stripper
- One Adjustable Plate for making plain gable blocks
- One Flat Square End Concrete Block Tamper
- One Cast Iron Pallet for 8x8x16 blocks
- One Wood Pallet for 8x8x16 blocks
- One Cast Iron Pallet for 8x10x16 blocks
- One Wood Pallet for 8x10x16 blocks
- One Steel Plate for forming inside corners
- One Wrench
- One Steel Striker
- One Concrete Block Carrier
- One Right Hand Joist Block Plate
- One Left Hand Joist Block Plate

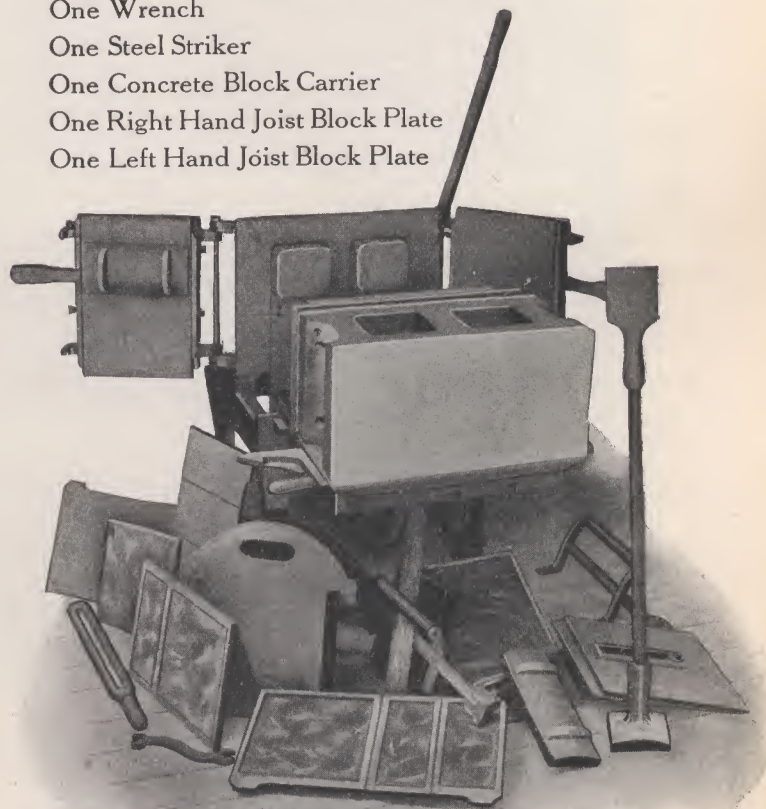
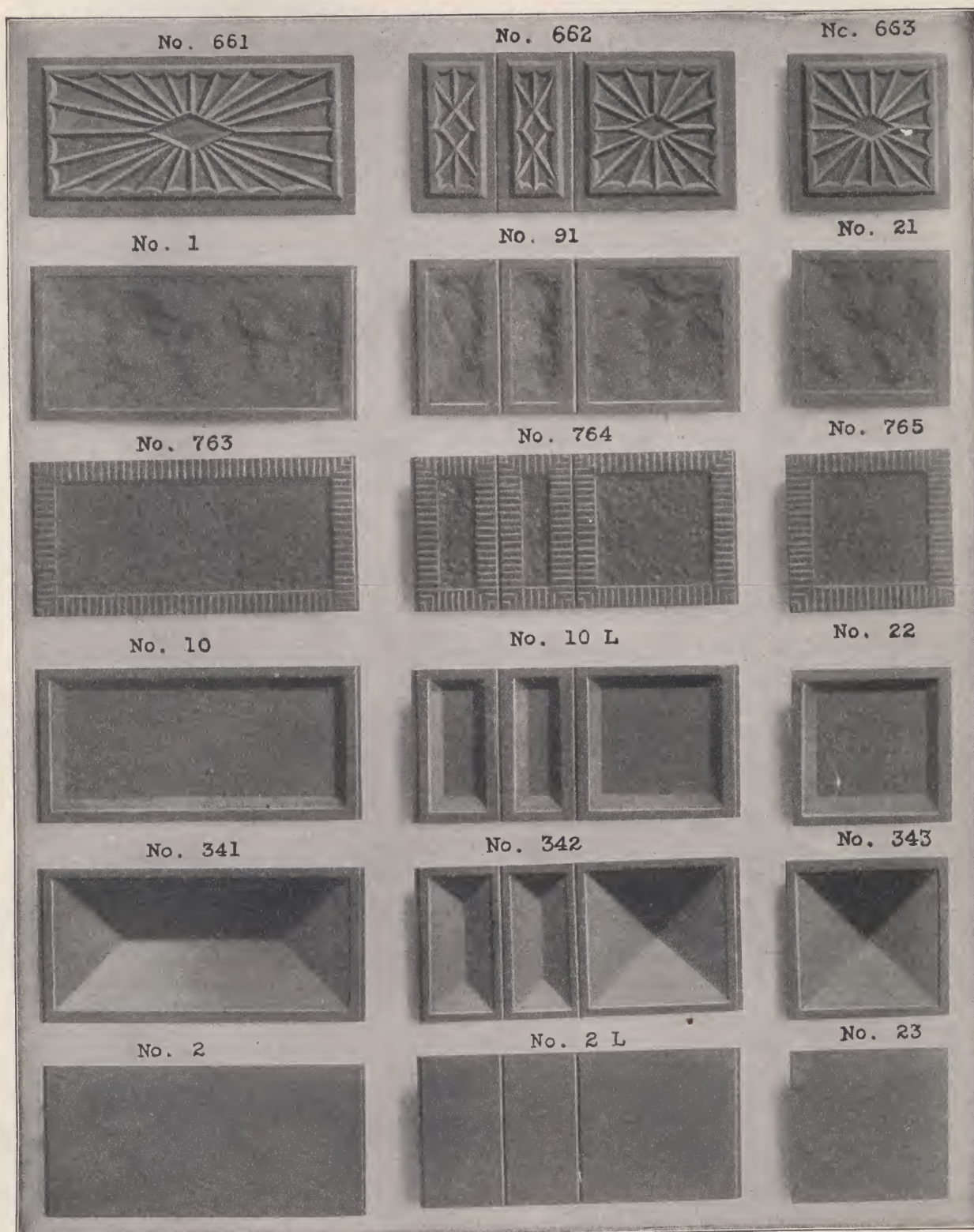


Fig. 4.



# MIRACLE ADJUSTABLE FACE-DOWN MACHINE—Continued

It is impossible to excel these standard Miracle designs, because they have all been approved and adopted by the leading architects, engineers, contractors and cement workers of the world.



All of these Miracle designs are planed and carefully fitted to the machines before they leave the factory. The Miracle's cry is "A Perfect Block at the Lowest Possible Cost"

A Miracle Machine is always a safe investment, as Miracle Blocks have superior merit.



# INTERNATIONAL BLOCK MACHINE

SINGLE AIR SPACE.

Price  
\$175.00

F. O. B.  
Minneapolis.

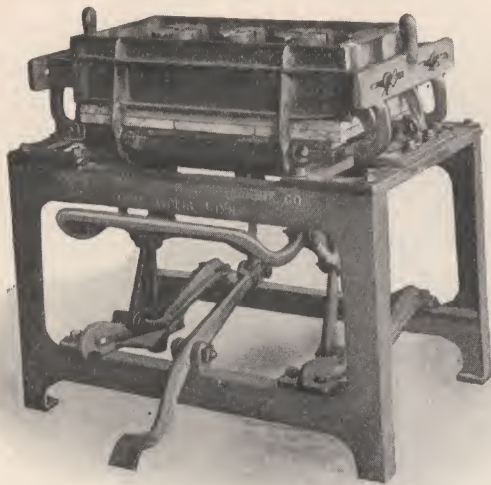


Illustration No. 1—Ready for the Mixture.

## A MACHINE WITH MERIT.

The International is an exceptionally strong machine. It is based upon the simplest of principles and has demonstrated its practical and economical value in many successful plants.

It is made entirely of iron and steel, especially for heavy service, and lots of it. Being equipped complete for all kinds of ordinary construction, it represents one of the best single air space machines on the market.

## CONSTRUCTION.

The massive construction of the standard of the International depicts its serviceable qualities. The mold proper is rigidly bolted to the frame and is made up of adjustable sides and ends, which are held securely into position by two strong iron clamps.

The cores are bolted to a bracket or cross beam which slides vertically up and down on two rods which keeps the cores in exact position horizontally, but allows them to be raised and lowered in and out of the mold at the will of the operator. They are lowered by releasing the catch, which is done by raising the hand lever in front of the machine. They are raised into position again by means of the foot lever. Each core is split lengthwise and crosswise of the mold for several inches from the top to allow for division plates in making one-half, one-quarter, three-quarter and veneer blocks in plain face.

The pallets, which are made of wood, are made with three holes in the center in order to slip over the cores and placed in the bottom of the mold.

Each end plate, the back plate and front plate are easily taken off and replaced plates quickly adjusted. The machine is equipped to produce the following Blocks.

## THE BLOCKS YOU CAN MAKE.

The International is regularly equipped to make blocks 6 inches high, 24 inches long, and 8, 10, 12 and 16 inches wide. Produces plain face, rock face and panel face blocks; panel face divided and rock face divided; plain, panel and rock face half length blocks; return corner blocks of all faces; plain end blocks for window jamb; veneer blocks of plain faces;  $\frac{1}{4}$ ,  $\frac{1}{2}$  and  $\frac{3}{4}$  stones, 8, 10, 12 and 16 inches wide, and chimney blocks.

## OPERATION.

The International Machine is automatic in its operation. Illustration No. 1 shows the machine ready for the mixture. The tamping and floating off are simple operations known by all cement users and quickly grasped by the novice. By lifting the hand lever in front of the machine which withdraws a catch, the cores drop out of the mold by their own weight. The operator steadies this operation by placing his foot on the foot lever, thus letting the cores down easy. The clamps at the ends of the

mold are then forced outward, which permits all sides of the mold to be released from the block. This completes the operation, leaving the finished block ready to be removed for curing.

## PARTS FOR INTERNATIONAL.

Shipping Weight, 860 lbs.

The International is equipped with the following parts.

1 Standard, complete with cores.....	
1 back plate.....	S-2
1 plain face plate.....	S-2
1 panel face plate.....	S-4
1 panel face plate divided.....	S-3
1 rock face plate.....	S-8
1 rock face plate divided.....	S-9
1 8-inch return corner plate.....	S-6
1 16-inch return corner plate.....	S-5
1 10-inch return corner plate.....	S-7
2 8-inch cored end plates.....	E-5
2 10-inch cored end plates.....	E-6
2 12-inch cored end plates.....	E-3
2 16-inch cored end plates.....	E-9
1 12-inch panel end plate.....	E-7
1 12-inch rock face end plate.....	E-1
1 8-inch plain end for window Jamb.....	E-4
1 10-inch plain end for window jamb.....	E-2
1 12-inch plain end for window jamb.....	E-8
1 16-inch plain end for window jamb.....	E-10
1 chimney dividing iron.....	No. 13
1 8-inch chimney dividing iron.....	No. 17
1 10-inch chimney dividing iron.....	No. 16
1 12-inch chimney dividing iron.....	No. 15
1 16-inch chimney dividing iron.....	No. 14
1 Veneer.....	No. 12 2 tampers
1 Chimney core.....	No. 11 2 sample pallets

Sanger, Cal., April 12, 1908.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gents:—In checking up the different parts of the International Machine we purchased from you we found it short 1 plain 16-inch end plate, No. E-10, 1 Chimney dividing iron No. 13. The machine is satisfactory in every respect, and we can turn out fine work with it. Two of us turning out 20 blocks an hour with it and doing our own mixing by hand.

Please send me your complete catalog of cement tools and machines. I am very respectfully,

L. M. HOWELL, Jr.



Illustration No. 2—The Finished Product.



# WONDER FACE DOWN MACHINE—Price \$70.

FOR MAKING BLOCKS FACE DOWN,

**SIMPLE, PRACTICAL AND HAVING WIDE RANGE OF PRODUCT.**

Shipping Weight, 350 Lbs.,

Capacity, 200 Blocks Per Day.

Standard Size, 8x8x16 Inches.



Illustration No. 1—Tamping.

## THE BLOCK IT PRODUCES.

The Wonder Face Down Machine No. 1 is equipped to produce single air space blocks 8x8x16 inches. This form and size of block is very desirable for foundations and ordinary buildings. It is very light and easily handled, weighing only 50 pounds. It occupies 1,024 cubic inches, 29 per cent. being air space. It is equipped completely with accessories for making all kinds of shapes, designs and fractional parts of blocks.

## CAPACITY.

The Wonder Face Down Machine has a capacity of 200 blocks every ten hours, when operated by a man of ordinary intelligence and ability. It is understood, however, that this material be mixed and delivered to him.

This output has been exceeded by many operators, the capacity being limited only by human speed and endurance.

## CONSTRUCTION.

The Wonder Face Down Machine has the same honest, durable construction which characterizes all of the Miracle products. It is built of the best iron castings. Strength and durability are its strongest features. It will last a lifetime under the most severe usage. Every part is perfectly machined and assembled, forming perfect angles, and assuring a perfect block. The strong iron standard is made so that it may be securely fastened to the floor. The mold is rigidly fastened to the standard, and the levers and adjustable parts are well fitted, yet are operated with perfect ease. It will

be noticed that there are no cogs, no gears, no chains, or other arrangements to get out of order, or to interfere with the speedy operation of the machine.

The Face plate is detachable, being located in the bottom of the mold and firmly fastened by use of set screws to two arms projecting from the lower front angle of the mold. This angle hinges so that the front of the mold or pallet is dropped outward and downward, while the face plate turns up towards the operator. This frees the block, placing it in an upright position with the face away from the operator.

## OPERATION.

Two shovels of mixture are thrown into the mold and tamped down well onto the face. The cores are then drawn into position by pulling the upright lever and the balance of the mold filled and tamped. Notice that the tamper used, has two heads of different sizes and shapes. The square, flat head is used to tamp the face of the block, and the narrow, flattened end is used in tamping between the cores. The top of the block in the mold is the back of the block in the wall, consequently it need not be troweled to a fine, smooth surface. With an ordinary wood float it is leveled quickly and evenly. The float is held with the front side raised and is pushed from the operator, so that all surplus material will be forced down into the block.

The cores are withdrawn by forcing back the lever as shown in illustration No. 2. By raising the catches on the end plates the ends are thrown back and the block turned into an upright position by the use of the lever on the right of the machine. See illustration No. 3. This places the block on the pallet.

The machine is equipped with special handles for carrying the block away. It is so constructed that the back of the block is protected against damage by brushing against the operator. With it the block and the pallet can be picked up, carried away and set down again without the slightest delay or damage. Illustration No. 4 shows the finished block being carried off, but does not illustrate the lifting apparatus in its true form.

The face plate is then easily turned back into position, the end plates fastened and another pallet dropped into place. The machine is then ready for a new block.



Illustration No. 2—Withdrawing the Cores.



## WONDER FACE-DOWN MACHINE—Continued.



Illustration No. 3—Upturning the Block.



Illustration No. 4—The Finished Product.

### PARTS FOR COMPLETE OUTFIT.

One Standard complete, 8x8x16.  
 One full size, Plain Face Plate.  
 One full size, Panel Face Plate.  
 One full size, Rock Face Plate.  
 One Plain Face Plate for half Blocks.  
 One Plain Face Plate for one-fourth and three-fourths Blocks.  
 One Panel Face Plate for half Blocks.  
 One Panel Face Plate for one-fourth and three-fourths Blocks.  
 One Rock Face Plate for half Blocks.  
 One Rock Face Plate for one-fourth and three-fourths Blocks.  
 Two Regular Cored End Plates.  
 One Plain Face End Plate for Corner Blocks.  
 One Panel Face End Plate for Corner Blocks.  
 One Rock Face End Plate for Corner Blocks.  
 Two Cores.  
 One Division Plate.  
 One Double-Headed Iron Tamper.  
 25 Iron Pallets.

Additional Iron Pallets, 25 cents each.

**PRICE \$70.00.**

### A FEW BLOCKS YOU CAN MAKE.

Plain Face full size Blocks.  
 Panel Face full size Blocks.  
 Rock Face full size Blocks.  
 Plain Face one-quarter size Blocks.  
 Panel Face one-quarter size Blocks.  
 Rock Face one-quarter size Blocks.  
 Plain Face one-half size Blocks.  
 Panel Face one-half size Blocks.  
 Rock Face one-half size Blocks.  
 Plain Face three-quarter size Blocks.  
 Panel Face three-quarter size Blocks.  
 Rock Face three-quarter size Blocks.  
 Plain Face full size Corner Blocks.  
 Panel Face full size Corner Blocks.  
 Rock Face full size Corner Blocks.

### COST OF BLOCKS.

Under ordinary conditions, the block from a Wonder Face Down Machine No. 1 can be made for about eight cents.

This figure is based on a cost of \$2.00 per barrel for cement; sand at 60 cents per cubic yard, and labor at \$2.00 per day.

By using the following schedule you can easily arrive at the actual amount each block will cost you. Suppose the best Portland cement cost you \$.... per barrel (380 pounds) f. o. b. your station; one barrel will make 50, 8x8x16-inch blocks; mixture 4-1. Divide this by 50 and you will arrive at the cost of cement in each block.

Your sand costs you \$.... per cubic yard, which makes 70 blocks (8x8x16 inches). Divide this by 70, which equals cost of sand in each block.

One man at \$.... per day and a helper at \$.... per day, can make 200 blocks in ten hours. Divide total labor expense by 200, to find the cost of labor in each block.

This machine is also furnished to make blocks 8x10x16, with the following parts:

K- 5X Left Hand Bracket.  
 K- 6X Right Hand Bracket.  
 K- 7X Guide for core rods.  
 K-11X Plain Back Plate.  
 K-15X Left cored end door.  
 K-16X Right cored end door.  
 K-38 10-inch Plain end door.  
 K-39 10-inch Panel end door.  
 K-40 10-inch Rock end door.  
 K-41 10-inch Rock (no margin) end door.  
 K-42 10-inch Division Plate.  
 25 10-inch Pallets.

**PRICE \$95.00.**

A combination machine capable of making both 8x8x16 and 8x10x16 blocks, in plain panel and rock face, with  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$  and full length blocks. Price, \$140.

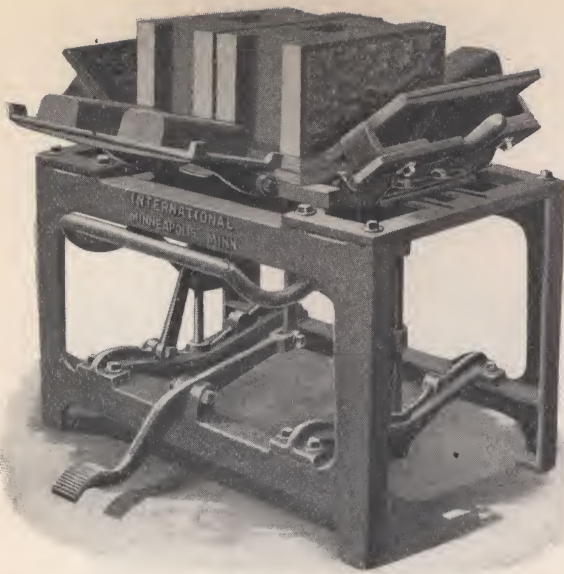
We will also furnish additional faces, such as cobble stone, hammered, or whatever face may be desired, at \$10 per set. That is, full length, half length, three-quarter length, and end door plates.



# TWIN BLOCK DROP CORE MACHINE

Blocks 8x8x16 inches, rock and plain face

Price, \$135.00



In some localities there is a ready market for a Concrete block 8x8x16, single air space, for foundation blocks and other purposes where a moisture and frost proof wall is unnecessary. In work of this kind it is necessary to compete with very cheap material, such as the cheapest of rubble stone and ordinary soft brick, which in some localities can be had for as low a price as \$6.00 per thousand.

To fill the demand for such a block as mentioned, that can be made at a price which enables one to compete with other cheap material, we have perfected the Twin Drop Core Block Machine. It has plenty of air spaces, so it can be made at a small cost, although not enough air spaces to make it too weak. Making two blocks in one operation, reduces the labor expense at least one-third.

You can make an 8x8x16 block on the Twin Drop Core Block Machine, in the average locality, for about 6c. You can retail this block for 15c and the consumer can get nothing in other material that will meet this price, consequently our manufacturers can make over 100%, and get all of this work.

The illustration on this page shows the machine open. It works on the same principle exactly as the International Block Machine, described on page 77, viz., the cores are dropped from the bottom through the wooden pallet by their own weight, by simply releasing a clutch. The side and end plates are turned in a quarter circle to free the blocks, and the two blocks are ready to be carried away to be cured.

The machine is made of heavy gray iron castings throughout, and is as durable a machine as can possibly be made.

Price, \$135.00.

## LIST OF PARTS

### EQUIPMENT FOR TWIN DROP CORE BLOCK MACHINE.

- 1—Stand, complete with Cores
- 2—Full Length Rock Face Plates
- 1—Rock Face Plate, for making 2½ inch Blocks
- 1—Rock Face Plate, for making Quarter and Three-quarter Length Blocks.

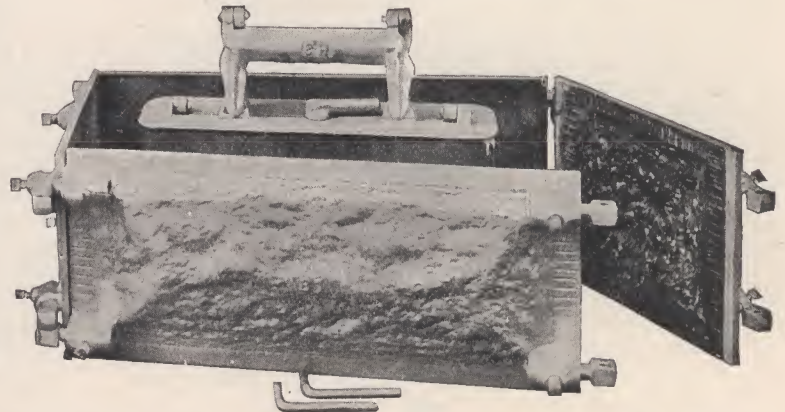
### One-half Rock and One-half Plain End Plates

- 2—Full Length Plain Face Plates
- 1—Plain Face Plate for making 2 Half Length Blocks
- 1—Plain Face Plate for making One-quarter and Three-quarter Blocks
- 2—Corner End Plates, 16 inch
- 2—Tampers
- 1—Sample Pallet
- 1—Division Plate for One-half and One-quarter Blocks.

### No. 1 COMBINATION BUILDING STONE OUTFIT.

The No. 1 Combination Building Stone Outfit is a very low price machine, furnished with following plates:

- 1—Rock Face Plate
- 1—Rock End "
- 1—Plain Face "
- 2—Plain End "
- 1—Panel Face "
- 1—Panel End "
- 1—Tool Face "
- 1—Tool End "
- 1—Plain Back "
- 1—Reveal End "
- 1—Rock Face Plate for making blocks 9, 5, 3 in. long
- 1—Plain Face Plate for making blocks 9, 5, 3 in. long
- 1—Tampers
- 1—Trowel
- 1—Collapsible Core



It is suitable for ordinary foundation work and is a very practical outfit for the party who wants to begin on a very small scale. The block measures 8x18 inches on the face and occupies one surface foot in the wall. This block should make the manufacturer a profit of at least 10c each, in competing with other material, which is in reality about \$15.00 per day, if the machine is kept busy.

Price, \$22.50.

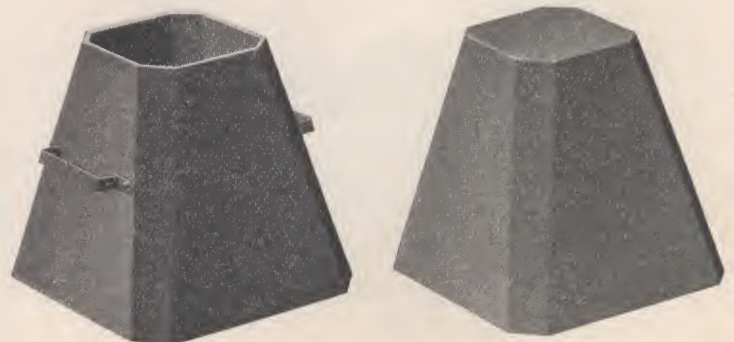
## CONCRETE CORN CRIB PIER MOLD.

One of the best money makers of any mold shown in this catalogue is the Miracle Concrete Corn Crib Pier Mold.

A piece of rubble stone about 12x12x8 inches high will cost in the average country town, 15c. It requires a piece of stone that large to make a substantial footing on which to place sills for a corn crib. The Miracle Concrete Corn Crib Pier Mold makes a very neat, solid concrete pier, measuring 10 inches square at the bottom, 6 inches square at the top and 11 inches in height. The corners are beveled to add to the appearance. The pier is of equal size, consequently, it is an easy matter to place them in position, ready for the sill. The actual cost of making a pier is about 5c, and you can sell all you can manufacture at from 12c to 15c.

An ordinary cement floor or wooden floor, the mold, the concrete and a workman is all that is necessary to make the pier. After filling the mold full and tamping, simply lift it off the finished product and make another pier.

Price of Mold Complete with Tamper, \$7.50.





# MIRACLE CONCRETE



THE uses of concrete are limited only by the needs and the ingenuity of men. In no industry—not even in the use of steel—has the development been into more varied and unexpected lines. It would seem idle to attempt a prediction as to the particular branch of industry in which concrete will ultimately show its greatest development, but from present indications it is not improbable that the making of concrete sewer pipe and drain tile will be widely popular, profitable and permanent as a business.

## COMMON MATERIALS AND COMMON LABOR.

As has been aptly said, the foundation principle of the concrete industry is its unparalleled economy. In nearly every community the main element—sand and gravel—are to be had for the mere taking of them. Workmen in concrete require no special knowledge or experience, aside from average common sense and a few simple directions. The only part therefore that must be bought is Portland cement. This is now so cheap and the use extending so rapidly that it can be purchased at very low prices practically everywhere in America—in fact, throughout the civilized world.

This explains why concrete sewer pipe and drain tile are rapidly supplying the needs of the farmers for drainage and the requirements of the cities and towns in the building and extension of sewer systems.

A big advantage lies in the use of the labor and material available near where any improvement is going on. This is particularly true of sewer and drain pipe. The freight and hauling is oftentimes half of the first cost of clay pipe shipped from the factories. The breakage is also a considerable proportion of the cost; for in order to make sure that the job can be completed, it is necessary to add to the quantity ordered a considerable percentage for breakage, which is a loss even though the breakage is less than normal. But in cases of unusually large breakage, this shortage thus caused sometimes delays the completion of a job until a new lot of clay pipe can be received, occasioning annoyance, delay and loss.

But with concrete pipe, which is made near where it is used, and on big work is frequently made on the job, the breakage is reduced to the minimum.

But this is not all of the advantage which concrete pipe has over clay. To make clay pipe requires an organized business with a large capital invested in plant and clay beds; also skilled workers. Besides, clay that is suitable for sewer pipe is not fit for drain tile and, while there is no shortage of suitable clay for all purposes, it can by no means be had at all points, as may be evidenced in the fact that clay products are shipped for many hundreds of miles, and are stocked and stored like ordinary merchandise, which adds to the cost to the consumer.

Compare this with the simplicity of the production of Miracle concrete sewer pipe and drain tile. Excepting a few simple molds, nothing is required but sand, water, common labor and cement. Portland cement is as staple as sugar. Its quality is standardized and regular. It has a market price which has been gradually reduced with the phenomenal increase in the production. It would be difficult to imagine any manufacturing business in which there is so little of the element of chance or uncertainty as making concrete sewer pipe and concrete drain tile. Besides, concrete pipe making has the advantage of using cheap labor at certain periods of the year.

No expensive equipment is required either to make, cure or store concrete pipe or tile. Rain only helps to make it better and the ordinary weather changes on the cured product are just what it needs to properly age it. No large stocks need be carried as on the average large size contract it is known at least thirty days ahead the sizes that will be used, giving plenty of time to manufacture and cure the product.

It will thus be seen that concrete sewer pipe and drain tile have these peculiar advantages:

They can be made by home labor out of home material (excepting the cement); they can be made and laid for less cost than clay pipe; there need be no large stocks carried to take care of unexpected demand, as they can be made and cured on short notice; they require only a small investment, affording labor and business opportunities for men of very small means to get a start that will make them handsome profits and ultimately a fine business.



Miracle 12-inch Bell-End Sewer Pipe.



There is just one other point to be considered in connection with the use of concrete sewer pipe and concrete drain tile; that is: Will they make good in use?

On this point it can be truthfully said that if all the other advantages above referred to were in favor of clay pipe, then on the score of strength and lasting qualities alone concrete sewer pipe and drain tile would still be preferred by those who wanted the best job.

Tests made at the Iowa State College, Ames, Iowa, under the direction of Prof. A. Marston, dean of the Engineering Department, show the relative strength of concrete drain tile at 2 months and 11 months as compared with clay tile, the sizes ranging from 24 down to 12 inches internal diameter. We will be pleased to send anyone interested a copy of this report in full. It shows that the tile at 11 months withstood a strain per lineal inch of about 66 per cent more than clay tile of the same size, both kinds of pipe being made of the usual thickness. So much for scientific tests. (See page 104.)

A more practical test is that made by the city of Milwaukee in its use of concrete sewer pipe for years. The facts are covered in an address made at the meeting of the Northwestern Cement Products Association held at Chicago, December, 1907, in which Mr. J. P. Sherer, a member of the board of public works of Milwaukee, says that for city work on sewers cement pipe is preferred over vitrified clay pipe even though the selling price is the same. (See page 103.)

The manufacture of concrete sewer pipe and concrete drain tile opens the way for two lines: small plants in the country and large plants in the cities and towns. A farmer with his hired men can make in their odd time all the drain tile and other pipe needed about the farm, so that the money cost is limited to the price of a few bags of Portland cement. The subject of under drainage is referred to elsewhere in this book so that it need not be enlarged upon here. Such a farm plant can also be extended into making culverts and drains for public roads, etc.

There is hardly a community anywhere in America that will not open an opportunity for some man to get hold of a sand bank, secure a few Miracle concrete tile molds and buy a few bags of cement and get to work filling the orders that he can get by showing his neighbors that he has a product worthy of their attention. Several thousand men have been started in business by us in this way. We can do even more now for our customers than we have in the past.

## BETTER DRAINAGE.

Drainage is the farmers' great problem to-day. The great land owners of our country are ready for united action to see the importance of better drainage.

We have but to recall to your mind the inestimable loss incurred by the devastating rains of past years, and you will point to the millions of dollars of loss of grain, highways and price of land that might have been prevented had proper drainage been maintained—drainage which would have speedily carried away the flood of water. Those who in the past felt secure, found that what they termed their "best pieces" submerged and the lowlands which had always been "best pasture" transformed into veritable lakes. What has this meant to the farmer, the

land owner, and to the country? Bankrupts and despair were not confined to the "man behind the plow." Lumber dealers and merchants who struggled along through that eventful period were glad to have made one side of the ledger balance the other. But more than all else, it has awakened within every citizen the absolute necessity for precaution for the future. Merchant, farmer, lawyer, doctor, all join, and the result is the greatest move the country has ever known in the direction of better drainage. The legislatures have made favorable drainage laws the first issue, and the land-owners are responding. Let us suggest this to you, Mr. Lumberman, or Mr. Manufacturer, the old adage, "strike while the iron is hot," the promptings of which every successful man in the world today has paid tribute, and thereby hangs the tale of his prosperity.

The cry for more Improved Material, Absolutely Indestructible, at a cost within the reach of practicability, led to the invention of the Miracle Cement Tile and Sewer Pipe Molds. We have opened the way. Many hundreds have taken up the manufacture, and their large success indicates that cement tile of all sizes are readily superseding the clay tile.



A Crew of Two Men Can Lay the Tile in a Deep Ditch.



Laying Miracle Drain Tile in a Ditch Partly Filled with Water.



# MIRACLE MOLDS EARN LARGE PROFITS ON SMALL INVESTMENTS



Illustration No. 1—Tamping in the Bell.

Another point of great superiority is that the inner and outer casings are each in one piece. This results in a great saving of time, decreasing the cost of labor by increasing the capacity to a maximum by doing away with awkward handling of separate parts, insuring greater speed than can be had with any other Molds.

## A GOOD SIDE LINE.

The manufacture of cement tile by the use of our New Improved Molds has become most popular as a side line. The lumberman, the merchant, the tradesman have all found it a most profitable and practical proposition. It requires little time and attention of the investors if a responsible workman can be placed in charge. It calls for a very small capital compared to that which is required by the use of other molds and in view of the large profits that are possible. We have had many persons,—lumbermen especially, write us that the profits on their cement business as a side line was more profitable than their lumber business, and that their investment was comparatively nothing.

This is an excellent and practical way to become acquainted with the Concrete Industry as a whole, and if followed up as it should be, will stand as the opening wedge to something better.

## COMPARISON TO CLAY TILE.

It is a well known fact that the advance in price of fuel and scarcity of good clay is rapidly increasing the cost of all clay products. Again, you often find that when a man wants Sewer Pipe or Tile, it is not so much a question of the price as "when can I get it." This brings up what is often competition's greatest argument, prompt and quick delivery.



**Tiling Spade**  
4½x20.....\$1.85 each  
6½x18.....1.95 "  
6½x22.....1.95 "



**Ditching Spade**  
14-inch.....95c each  
16-inch.....\$1.00 "  
20-inch.....1.00 "



**Draining Spade**  
5½" at the top to 4½" point, 18" long, \$1.00

The introduction of Cement Tile and Sewer Pipe puts an entirely different phase on this question, as the supply of sand is unlimited, and new Cement Mills springing up daily make it possible for each community to supply its own Cement, thus doing away with the large Freight Charges which heretofore have been a great factor in cost. It is certainly reasonable that Sewer Pipe or Tile can be sold cheaper direct from Maker to Consumer than from Maker to Jobber, from Jobber to Retailer, from Retailer to Consumer, not to mention the Big Freight Charges on this Class of Goods, which must be added in the end to the Retail Price.

We print here a table giving the Average Retail Price on Clay Pipe. Also a table showing the much lower cost to you to make the Pipe of Cement with MIRACLE Molds. You know what the same sizes in clay cost you, delivered in your town. You know that the difference is so great that if a competitor puts in a MIRACLE Cement Plant you would have to go out of the Clay Pipe business.

Average Retail Price per foot for Clay Sewer Pipe in table below is from quotation of 140 leading retail dealers representing all sections of the United States:

Remember that these figures are not intended to fit the cheap, straight clay pipe, nor a porous cement pipe for drain purposes, but the best vitrified clay pipe and the very best (3 to 1) cement pipe, with bell ends.	Average retail price per foot of clay Bell-end pipe.	Cost per foot to make Bell-end cement pipe with Miracle Molds.
4-inch .....	\$0.12	\$0.05
5-inch .....	.14	.054
6-inch .....	.17	.07
8-inch .....	.23	.086
9-inch .....	.26	.096
10-inch .....	.30	.115
12-inch .....	.375	.155
15-inch .....	.543	.192
16-inch .....	.60	.205
18-inch .....	.789	.237
20-inch .....	1.008	.255
24-inch .....	1.45	.343
26-inch .....	1.65	.385
30-inch .....	2.10	.443
36-inch .....	2.75	.575



## THE MECHANISM IS ACCURATE. THE OPERATION SIMPLE.

### REPEAT ORDERS

Are the **BEST POSSIBLE PROOF** of the profits to be realized on **CONCRETE PIPE** and the stability of this branch of the concrete business.

The following is a list of the machines purchased by the Bartlett Lumber Co. of Greeley, Colo.:

June 7, 1906—8-in., 12-in., 15-in., 20-in.

Sept. 30, 1906—6-in., 10-in., 26-in.

Oct. 18, 1906—18-in., 24-in.

May 1, 1907—30-in.

May 7, 1908—Bell attachment for several of above sizes.

Would this firm still be purchasing additional equipment, had not the first order been a **Profitable Investment?**

Garysburg, N. C., March 27, 1908.

Miracle Pressed Stone Co. Minneapolis, Minn.

Gentlemen:—I beg to hand you herewith enclosed draft, N. Y. for forty dollars and sixty-five cents (\$40.65) for which you will ship me the tile mold and attachments as described on order blank attached hereto. I will thank you if you will have this machine shipped at once. Go to Express office and if the express charges are not more than ten (10) dollars, ship by Express, if more than ten let it come by freight. I instructed the bank several days ago to pay the draft for \$55.75 of yours number 1020 and trust you have received remittance ere this.

I used the 24 in. mold one day and turned out 22 joints of pipe and was very much pleased with the work.

Trusting you will give this matter prompt attention, I am,

Yours truly, JNO. G. ELLIS.



Making Bell End Pipe

## Miracle More-Money Molds.

### NINE GOOD POINTERS.

1. They are the summit of perfection.
2. The shells can be removed immediately after tamping.
3. One mold will, therefore, do the work of fifty molds of any other make, and it only costs one-fiftieth as much.
4. The investment is therefore greatly reduced.
5. The profits are, therefore, greatly increased.
6. The sale of 100 pieces of pipe 10 in. and larger will yield profit enough to pay the investment and leave a considerable balance besides.
7. We will sell one mold on 30-day free trial and return your money if not fully as represented.
8. Why not send for one mold of the most suitable size for your territory and try it out for your own satisfaction?
9. Read the following pages, and then decide.



Removing Inner Shell.





Lakeland, Louisiana, July 10, 1907.

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:—Some time ago we bought one of your molds for making twenty inch cement sewer pipe. We have used it to make several pipes and find that it works quite satisfactorily in the hands of our ordinary plantation laborers.

We are greatly pleased with the mold. With it we can replace our wooden bridges at half the cost of vitrified pipes and at about the same price as new bridges. We consider the cement pipe superior to the vitrified pipe as the cement will continue to harden for many years after being placed in the ground.

Respectfully,

ALMA PLANTATION, Ltd.

H. C. Pitcher, Gen'l Mgr.

Salem, Mo., Dec. 17, 1907.

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:

The Tile Machine I ordered of you is all right. I unpacked it and made nine tile, they are Beauties. Am pleased with it and can say it is all you claim. Draft for \$45.25, please apply to my account. Will want 4-inch Tile Machine soon, is it as easy to operate as the large and send me some information about your \$15.00 Brick Machine.

Yours truly,

J. R. RAY.

## Cost of Cement Pipe and Tile.

The following cost is figured on a basis of a mixture of One Part Cement to Three Parts Sand. (This Mixture makes a Pipe or Tile that is absolutely Indestructible.) These estimates are based upon results in every day work, as are all MIRACLE estimates, upon what the molds will actually do day in and day out, with a team of three men.

3-to-1 MIXTURE; SAND, 75c per yard; LABOR, \$2.00 per day; CEMENT, \$2 per barrel; 4-inch to 8-inch pipe 18 inches long and 10-inch to 36-inch pipe 2 feet long.

Kind of Tile.	Thickness.	Cubic Ft. Sand.	Cost of Sand.	Cost of Cement.	Cost of Labor.	Cost of Pipe.	Cost per Foot.
5-inch Bell	1 inch	.232	.006	.013	.062	.081	.054
6-inch Bell	1 inch	.354	.01	.015	.08	.105	.07
8-inch Bell	1 inch	.452	.015	.035	.08	.13	.086
8-inch Straight	1 inch	.432	.01	.03	.06	.10	.066
9-inch Bell	1 3/8 inch	.695	.0194	.083	.09	.1924	.0962
9-inch Straight	1 3/8 inch	.622	.0174	.074	.0655	.1569	.0785
10-inch Bell	1 3/8 inch	.83	.025	.105	.10	.23	.115
10-inch Straight	1 3/8 inch	.68	.02	.085	.07	.175	.087
12-inch Bell	1 1/2 inch	1.1	.03	.18	.10	.31	.155
12-inch Straight	1 1/2 inch	.88	.025	.145	.07	.24	.12
15-inch Bell	1 5/8 inch	1.4	.039	.235	.11	.384	.192
15-inch Straight	1 5/8 inch	1.17	.033	.195	.08	.308	.154
16-inch Bell	1 5/8 inch	1.42	.04	.25	.12	.41	.205
16-inch Straight	1 5/8 inch	1.24	.035	.215	.085	.325	.162
18-inch Bell	1 3/4 inch	1.84	.055	.28	.13	.465	.237
18-inch Straight	1 3/4 inch	1.5	.045	.21	.09	.345	.172
20-inch Bell	1 3/4 inch	1.95	.056	.325	.13	.511	.255
20-inch Straight	1 3/4 inch	1.67	.045	.266	.10	.411	.205
24-inch Bell	2 inch	2.75	.075	.46	.15	.685	.343
24-inch Straight	2 inch	2.25	.063	.37	.12	.553	.276
26-inch Bell	2 inch	3.05	.09	.52	.16	.77	.385
26-inch Straight	2 inch	2.5	.075	.43	.125	.63	.315
30-inch Bell	2 1/2 inch	3.70	.101	.615	.17	.886	.443
30-inch Straight	2 1/2 inch	3.13	.086	.55	.15	.786	.393
36-inch Bell	3 inch	4.90	.134	.815	.20	1.149	.575
36-inch Straight	3 inch	4.32	.118	.72	.17	1.008	.51



# PERFECT MECHANISM OF THE MOLDS.

## THE MIRACLE PRINCIPLE.



Illustration No. 5.  
Showing a sectional view of a Miracle Mold complete  
ready to make a straight tile.

Moorest, Pa., Feb. 10, 1908.

The Miracle Pressed Stone Co.,

Minneapolis, Minn.

Gentlemen:—Please send me your latest catalog of  
cement machinery.

We are well satisfied with the mold you sent us about  
a year ago. We had quite a fair output for the first year.  
Sold all we made and could have sold much more. Even  
the inferior pipe we did not wish to sell was sold. We are  
going to increase our plant soon.

Very truly yours,

OWEN E. BATT.

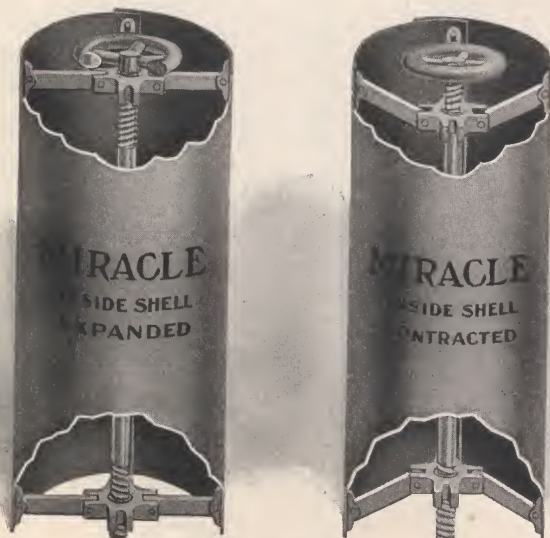


Illustration No. 6.  
Showing mechanism of inner shell of molds for making tile.  
Expanded and contracted.

The concrete industry may be a good proposition as a whole, but it would not be unless concrete itself had the merits claimed for it. Concrete products have the merits and are good; but it must be made right. Cement Sewer Pipe are certainly in demand, because they possess the unquestionable hardness and durability of well made concrete, and they grow better with age. With any good molds they can be made right, but with all molds except the "MIRACLE" the cost of making is too high to warrant a ready sale with good profits. Why? Because the shells of all molds EXCEPT THE "MIRACLE" cannot be removed immediately after tamping. Other molds must remain around the tile for twenty-four hours or more until the cement sets. This, of course, means that an enormous amount of money, upon which a good interest must be made, shall be spent in more molds so that a good quantity of tile can be produced each day. The supply of molds must equal the daily capacity; therefore, the cost of cement tile has always been out of proportion.

But the Miracle Improved Molds are different. One mold can be kept in operation all the time. It can be removed immediately after tamping, and the tile will remain and set perfectly. Both the interior and exterior shells can be promptly removed without the slightest jar to the fresh cement. Why? Because of its simple and perfect mechanism. (See illustrations Nos. 6 and 8.)

## EASILY AND SUCCESSFULLY OPERATED.

It's the steadiness of the releasing principles which makes these Improved Molds so popular and so successful. The outer shell (Illus. No. 8) can be expanded with all the steadiness and ease that its operator possesses. There is not that usual snap and jar of a lever, which with other molds causes the tile to crumble.

For making tile of all sizes in diameter, we use an interior shell, as shown in illustration No. 6. This consists of a screw arrangement which certainly does not permit of the least snap or jar in contracting. Notice how turning the screw to the left lowers the upper arms attached to the shell and raises the lower arms. In this way the distance from the circumference of the mold to the center is lessened, causing the shell to contract.

This screw arrangement gradually releasing the inner shell is most desirably adapted to all sizes, for otherwise the tendency would be to spring or jump when released.

Clarinda, Iowa, Dec. 17, 1906.

Miracle Pressed Stone Co.,

Minneapolis, Minn.

Gents:—The tile molds I find to be just the thing. We had a good sale of the tile, it was late in the year to buy these tile molds but we had a good trade. We made about 3,000 feet of 12-inch tile; 2,500 feet of 15-inch tile, and about 1,500 feet of 24-inch tile. I think they are better than clay tile. They will stand frost better, and the older they get the better they are. A clay tile is no better than the day it is put in the ground—cement gets better the longer it is in the ground. I know this to be true; I have made clay tile for 16 years and am still making them.

Yours,

PAUL O. COOK.

McKeesport, Pa., Dec. 11, 1907.

Miracle Pressed Stone Co.,

Minneapolis, Minn.

Dear Sirs:

In answer to yours of recent date regarding sewer pipe mold which we purchased from you, would say that this mold is giving perfect satisfaction and we are having no trouble with it.

Yours truly,

AMERICAN TOMB CO.,

Thos. M. Evans, Secy. & Treas.



# EVERYBODY LIKES THE MIRACLE MOLDS.



Illustration No. 8.  
Showing outer shells of all Miracle molds. Expanded and contracted.

Where it is necessary to reinforce pipe for inside pressure such as pipe for irrigation systems, we furnish reinforcement as per specification on page 21.

Lamar, Colo., April 17, 1908.  
Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—We have been using your machinery for making sewer and large drainage pipes for some time and the tiling made with your machinery gives the best of satisfaction. We have made sixty miles of cement tiling in the last year and it is taking the place of clay tiling quite rapidly, and the indications are that we will have to run our tile plant double shifts on account of the great demand that is being made for this class of tile.

Very truly yours,  
THE LAMAR BRICK & STONE CO.  
By L. Wirt Markham, President.

Spearfish, S. D., Dec. 12, 1907.

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:—Yours of 12/13 to hand. I would say the tile that I have made and sold has given good satisfaction, and I made good money, and have orders for 800 feet of 8-inch that sell at 25 cents per foot. The 2-foot bell end, I sell at \$1.40 a foot, \$2.80 per tile at yard. I intend to enlarge my place in spring so I can handle a large lot, as I haven't done much. I have had so much other work to look after.

Yours very truly,  
(Signed) B. F. BADGER.

A GOOD START.

Estherville, Iowa, Aug. 26, '05.

Miracle Pressed Stone Co., Minneapolis, Minn.

Dear Sirs:—It is 5 o'clock Saturday afternoon. The boys have their checks and have gone home; 495, 2 ft., 15-in tile is their week's record; satisfactory alike to them, to you, and to ourselves, I am sure. If all goes well next week, we will complete the 3,800-foot contract.

Hoping other purchasers of "Miracle More Money Molds" are having as good success getting them started, I am

Yours very cordially, (Signed) L. L. BINGHAM.

On May 1st, 1908, Mr. Bingham was still using the SAME Miracle More Money Molds.

Greenville, Ky., Dec. 29, 1906.

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:—I am very glad indeed that I bought the tile molds, and now need another size.

Please ship at once one 10-inch straight tile outfit and draw draft on Muhlenberg County Savings Bank, and oblige,

Very respectfully,  
R. C. McCracken.

## CAPACITY OF THE TILE.

The following is a table from Kutter's Formula with N. 013, giving the capacity of concrete sewer pipe discharge to cubic feet per second flowing full.

	Fall per 100 Feet.	10-in. Pipe.	12-in. Pipe.	15 in. Pipe.	18-in. Pipe.	20-in. Pipe.	24-in. Pipe.
We will send one Mold complete on approval, and return your cash if not satisfactory.	1. ft. . . . .	2.057	3.405	6.293	10.377	13.833	23.267
	.8 ft. . . . .	1.838	3.043	5.628	9.280	12.367	20.333
	.6 ft. . . . .	1.592	2.637	4.875	8.038	10.714	17.617
	.4 ft. . . . .	1.299	2.152	3.972	6.548	8.733	14.333
	.2 ft. . . . .	.910	1.507	2.788	4.598	6.133	10.833
	.1 ft. . . . .	.640	1.059	1.962	3.238	4.317	7.117
	.09 ft. . . . .	...	...	1.857	3.065	4.083	6.733
	.08 ft. . . . .	...	...	...	2.885	3.850	6.333
	.07 ft. . . . .	...	...	...	2.687	3.583	5.900
	.06 ft. . . . .	...	...	...	...	3.300	5.450
	.05 ft. . . . .	...	...	...	...	...	4.967
	.04 ft. . . . .	...	...	...	...	...	4.417
	.03 ft. . . . .	...	...	...	...	...	3.783
	.02 ft. . . . .	...	...	...	...	...	3.100

You can surely  
sell the  
product of one  
Mold.  
Send for the  
size which is  
most popular  
with you.





Grand Junction, Iowa, Tile Yard.

Grand Junction, Iowa, May 14, 1907.

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

Gentlemen:—We are mailing you under separate cover two photographs of our tile yard, and one of a test of a 28-inch tile. Photograph No. 1 shows our factory in the background, which is 40x132 feet.

Last year we started on a contract Aug. 13th and stopped Nov. 10th. During that time we made 7,000 feet 28-inch tile; 600 feet 20-inch tile, and 1,200 feet 18-inch tile. We run only one set of moulders using Miracle moulds. The concrete was proportioned 1 to 3 mixed in a cube mixer, which was run by a gasoline engine.

We hauled our tile to the ditch when about 15 to 20 days old, consequently when we stopped in the fall we had nothing in the yard. We put 2,500 pounds on an 18-inch tile and did not break it.

We have run out about 4,500 feet of large tile this spring.

Yours truly,  
MODERN CONSTRUCTION COMPANY.

Per G. H. Wiltse,  
O. B. Lofstedt.

That Cement Sewer Pipe is being adopted by cities is shown by the following order from Savannah, Ill.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Please ship the following order to O. H. Robe, City Clerk, City of Savannah, Ill., at once. Send bill to City Clerk first Wednesday in April,

1 8" Tile Mold.....	\$18.00
1 Top Ring Bevel and Tong.....	.80
10 Bottom Rings.....	5.00
1 12" Tile Mold.....	22.00
1 Top Ring Bevel and Tong.....	.95
10 Bottom Rings.....	6.50
1 18" Tile Mold.....	27.00
1 18" Bell Attachment.....	4.50
10 18" Inside Ring.....	12.50
1 24" Tile Mold.....	35.00
1 24" Set Bell Attachments.....	6.00
15 24" Inside Rings.....	24.75

\$163.00

Purchasing { W. W. McGRATH, Mayor.  
Committee { H. ZELENKA

## CAPACITY OF MOLDS.

The capacity per hour for each of the different styles and sizes of Miracle Molds are as follows:

Number of Tile made per hour with a team of three men.		Number of Tile made per hour with a team of three men.		Number of Tile made per hour with a team of three men.	
4-in. Bell-End.....	14 per hour	10-in. Bell-End.....	6 per hour	20-in. Bell-End.....	4.5 per hour
4-in. Straight.....	16 per hour	10-in. Straight.....	9 per hour	20-in. Straight.....	6.5 per hour
5-in. Bell-End.....	13 per hour	12-in. Bell-End.....	6 per hour	24-in. Bell-End.....	4 per hour
5-in. Straight.....	15 per hour	12-in. Straight.....	9 per hour	24-in. Straight.....	6 per hour
6-in. Bell-End.....	11 per hour	15-in. Bell-End.....	5.5 per hour	26-in. Bell-End.....	3.5 per hour
6-in. Straight.....	12 per hour	15-in. Straight.....	7.5 per hour	26-in. Straight.....	5.5 per hour
8-in. Bell-End.....	10 per hour	16-in. Bell-End.....	5.5 per hour	30-in. Bell-End.....	3.5 per hour
8-in. Straight.....	11 per hour	16-in. Straight.....	7.5 per hour	30-in. Straight.....	4 per hour
9-in. Bell-End.....	8 per hour	18-in. Bell-End.....	5 per hour	36-in. Bell-End.....	3 per hour
9-in. Straight.....	10 per hour	18-in. Straight.....	7 per hour	36-in. Straight.....	3.5 per hour



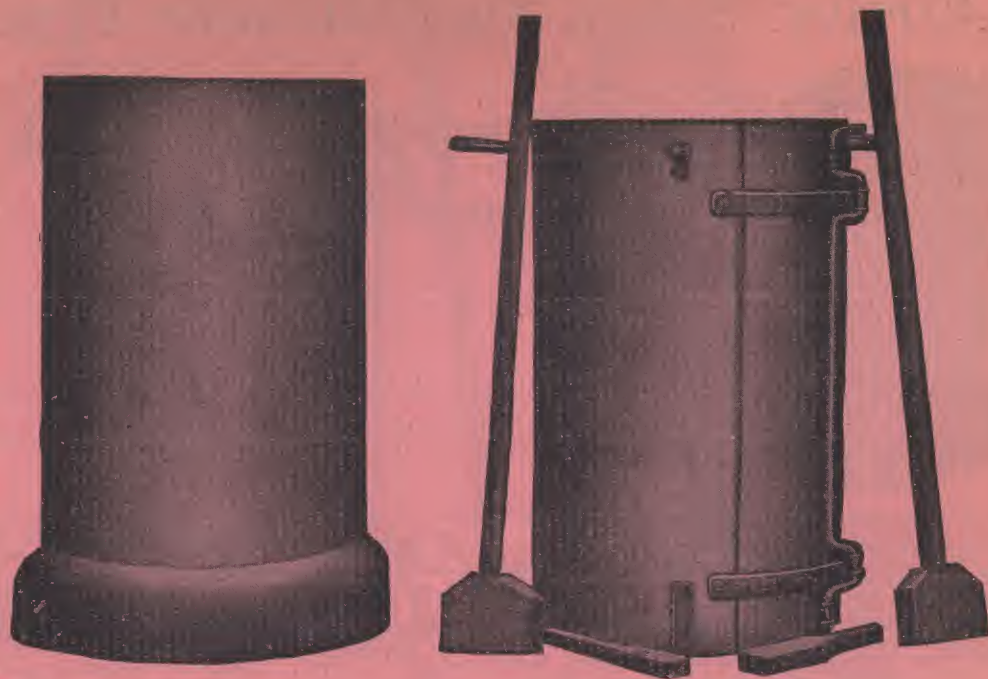
Please ship the sizes checked above to me at once. I enclose herewith (Check) (Draft) (Money Order) for \$ \_\_\_\_\_

NAME \_\_\_\_\_ TOWN \_\_\_\_\_

Ship Via \_\_\_\_\_ R. R. \_\_\_\_\_ STATE \_\_\_\_\_

If not rated in Dunn or Bradstreet, (to save delay in shipment) please send reference or 25% of amount with order.  
Remember, 5% discount is allowed where cash for entire amount accompanies the order—except Bell and Bevel and Tongue Attachments, which are net.

**MIRACLE PRESSED STONE CO., Minneapolis, Minn.**



## Order Blank for Miracle Pipe Molds

INSTRUCTIONS for ordering Miracle Pipe Molds—Place a check mark in front of size desired, extending the amount in dollars to last column. if you desire Bell Attachments or Bevel and Tongue Attachments, use order Blank on other side.

CHECK MARK	SIZE	ARTICLES	WEIGHT	PRICE	AMOUNT
	4-Inch	Straight Tile Mold Complete	20	\$16.00	\$
	5-Inch	Straight Tile Mold Complete	25	17.00	
	6-Inch	Straight Tile Mold Complete	34	17.00	
	8-Inch	Straight Tile Mold Complete	44	18.00	
	9-Inch	Straight Tile Mold Complete	55	19.50	
	10-Inch	Straight Tile Mold Complete	70	20.00	
	12-Inch	Straight Tile Mold Complete	90	22.00	
	14-Inch	Straight Tile Mold Complete	95	25.00	
	15-Inch	Straight Tile Mold Complete	100	25.00	
	16-Inch	Straight Tile Mold Complete	125	27.00	
	18-Inch	Straight Tile Mold Complete	141	27.00	
	20-Inch	Straight Tile Mold Complete	160	30.00	
	24-Inch	Straight Tile Mold Complete	180	35.00	
	26-Inch	Straight Tile Mold Complete	200	40.00	
	30-Inch	Straight Tile Mold Complete	263	45.00	
	36-Inch	Straight Tile Mold Complete	333	50.00	
Total,			-	-	\$

For Bell End and Bevel and Tongue Attachments, see opposite side.



# Order Blank for Miracle Pipe Moulds



## Bell End, and Bevel and Tongue Attachments



Also, please ship the following attachments for pipe moulds.

No Cash Discount on Bell or Bevel and Tongue Attachments.

Check Mark	BELL ATTACHMENTS		PRICE EACH	TOTAL AMOUNT	Check Mark	BEVEL AND TONGUE ATTACHMENTS		PRICE EACH	TOTAL AMOUNT
	1 Set Castings for Outside	4-inch Bell	\$1.75			4-inch Top Ring.....		\$0.80	
	Castings for Inside	4-inch Bell	.75			4-inch Bottom Ring...		.50	
	1 Set Castings for Outside	5-inch Bell	2.00			5-inch Top Ring.....		.80	
	Castings for Inside	5-inch Bell	.75			5-inch Bottom Ring...		.50	
	1 Set Castings for Outside	6-inch Bell	2.00			6-inch Top Ring.....		.80	
	Castings for Inside	6-inch Bell	.75			6-inch Bottom Ring...		.50	
	1 Set Castings for Outside	8-inch Bell	2.50			8-inch Top Ring.....		.80	
	Castings for Inside	8-inch Bell	.75			8-inch Bottom Ring...		.50	
	1 Set Castings for Outside	9-inch Bell	3.00			9-inch Top Ring.....		.85	
	Castings for Inside	9-inch Bell	.75			9-inch Bottom Ring...		.55	
	1 Set Castings for Outside	10-inch Bell	3.00			10-inch Top Ring.....		.90	
	Castings for Inside	10-inch Bell	.75			10-inch Bottom Ring...		.60	
	1 Set Castings for Outside	12-inch Bell	3.00			12-inch Top Ring.....		.95	
	Castings for Inside	12-inch Bell	.95			12-inch Bottom Ring...		.65	
	1 Set Castings for Outside	14-inch Bell	4.00			14-inch Top Ring.....		1.00	
	Castings for Inside	14-inch Bell	1.10			14-inch Bottom Ring...		.75	
	1 Set Castings for Outside	15-inch Bell	4.00			15-inch Top Ring.....		1.05	
	Castings for Inside	15-inch Bell	1.10			15-inch Bottom Ring...		.80	
	1 Set Castings for Outside	16-inch Bell	4.50			16-inch Top Ring.....		1.10	
	Castings for Inside	16-inch Bell	1.25			16-inch Bottom Ring...		.85	
	1 Set Castings for Outside	18-inch Bell	4.50			18-inch Top Ring.....		1.20	
	Castings for Inside	18-inch Bell	1.25			18-inch Bottom Ring...		.90	
	1 Set Castings for Outside	20-inch Bell	5.00			20-inch Top Ring.....		1.30	
	Castings for Inside	20-inch Bell	1.35			20-inch Bottom Ring...		1.00	
	1 Set Castings for Outside	24-inch Bell	6.00			24-inch Top Ring.....		1.50	
	Castings for Inside	24-inch Bell	1.65			24-inch Bottom Ring...		1.15	
	1 Set Castings for Outside	26-inch Bell	7.00			26-inch Top Ring.....		2.00	
	Castings for Inside	26-inch Bell	2.00			26-inch Bottom Ring...		1.50	
	1 Set Castings for Outside	30-inch Bell	7.50			30-inch Top Ring.....		2.25	
	Castings for Inside	30-inch Bell	3.50			30-inch Bottom Ring...		1.90	
	1 Set Castings for Outside	36-inch Bell	9.00			36-inch Top Ring.....		2.90	
	Castings for Inside	36-inch Bell	4.50			36-inch Bottom Ring...		2.55	
TOTAL, - - \$					TOTAL, - - \$				

The inside castings or bottom rings must remain in tile until tile can be moved.

When no number of inside castings or rings are specified, we will ship five.

Only one set of outside castings or top rings is necessary for making bell-end, or bevel and tongue pipe, as they are instantly removed.





Illustration No. 10.

A COMPLETE OUTFIT, INCLUDING BELL-END ATTACHMENTS.

### PRICES OF MIRACLE TILE MOLDS.

For making straight tile. Full instructions sent with each order.

\* Each size is complete in itself—including inside and outside casing, cone hopper and tampers (two for 15-inch size and larger, one for 12-inch and smaller); 15-inch and larger sizes include also a lifting bar with hooks for removing casing.

4-inch (18-inch lengths)	Inside measurements	\$16.00	20 lbs.
5-inch (18-inch lengths)	" "	17.00	25 lbs.
6-inch (18-inch lengths)	" "	17.00	34 lbs.
8-inch (18-inch lengths)	" "	18.00	44 lbs.
9-inch (2-ft. length)	" "	19.50	55 lbs.
10-inch (2-ft. length)	" "	20.00	70 lbs.
12-inch (2-ft. length)	" "	22.00	90 lbs.
14-inch (2-ft. length)	" "	25.00	95 lbs.
15-inch (2-ft. length)	" "	25.00	100 lbs.
16-inch (2-ft. length)	" "	27.00	125 lbs.
18-inch (2-ft. length)	" "	27.00	141 lbs.
20-inch (2-ft. length)	" "	30.00	160 lbs.
24-inch (2-ft. length)	" "	35.00	180 lbs.
26-inch (2-ft. length)	" "	40.00	200 lbs.
30-inch (2-ft. length)	" "	45.00	263 lbs.
36-inch (2-ft. length)	" "	50.00	333 lbs.
42-inch	Tile Machine	60.00	
48-inch	" "	70.00	
60-inch	" "	90.00	

	Inside shell.	Outside shell.	Cone.	Hopper.
4-inch.....	\$ 7.50	\$ 5.50	\$ .75	\$ 1.25
5-inch.....	8.00	6.00	.75	1.25
6-inch.....	8.00	6.00	.75	1.25
8-inch.....	8.50	6.25	.75	1.50
9-inch.....	9.00	6.75	.75	1.50
10-inch.....	9.75	7.00	.75	1.50
12-inch.....	10.75	8.00	.75	1.50
14-inch.....	11.50	8.75	1.00	1.75
15-inch.....	11.50	8.75	1.00	1.75
16-inch.....	12.75	9.50	1.00	1.75
18-inch.....	12.75	9.50	1.00	1.75
20-inch.....	14.00	10.75	1.25	2.00
24-inch.....	16.50	12.50	1.50	2.50
26-inch.....	18.50	15.00	1.75	2.75
30-inch.....	21.00	17.00	2.00	3.00
36-inch.....	22.00	20.00	2.50	3.50

Lifting Bars and hooks (used only on sizes 15-inch and larger), \$1.00 each. Tampers (one required for each mold 12-inch size and smaller, two required for 15-inch size and larger), \$1.00 each.

### EQUIPMENT FOR TURNING STRAIGHT PIPE MOLDS INTO BELL-END PIPE MOLDS.

4-inch set of Castings for outside of bell.....	\$1.75
4-inch Casting for inside bell with lugs, each.....	.75
5-inch set of Castings for outside of bell.....	2.00
5-inch Casting for inside bell with lugs, each.....	.75
6-inch set of Castings for outside of bell.....	2.00
6-inch Casting for inside bell with lugs, each.....	.75
8-inch set of Castings for outside of bell.....	2.50
8-inch Casting for inside bell with lugs, each.....	.75
9-inch set of Castings for outside of bell.....	3.00
9-inch Casting for inside bell with lugs, each.....	.75
10-inch set of Castings for outside of bell.....	3.00
10-inch Casting for inside bell with lugs, each.....	.75
12-inch set of Castings for outside of bell.....	3.00
12-inch Casting for inside bell with lugs, each.....	.95
14-inch set of Castings for outside of bell.....	4.00
14-inch Casting for inside bell with lugs, each.....	1.10
15-inch set of Castings for outside of bell.....	4.00
15-inch Casting for inside bell with lugs, each.....	1.10
16-inch set of Castings for outside of bell.....	4.50
16-inch Casting for inside bell with lugs, each.....	1.25
18-inch set of Castings for outside of bell.....	4.50
18-inch Casting for inside bell with lugs, each.....	1.25
20-inch set of Castings for outside of bell.....	5.00
20-inch Casting for inside bell with lugs, each.....	1.35
24-inch set of Castings for outside of bell.....	6.00
24-inch Casting for inside bell with lugs, each.....	1.65
26-inch set of Castings for outside of bell.....	7.00
26-inch Casting for inside bell with lugs, each.....	2.00
30-inch set of Castings for outside of bell.....	7.50
30-inch Casting for inside bell with lugs, each.....	3.50
36-inch set of Castings for outside of bell.....	9.00
36-inch Casting for inside bell with lugs, each.....	4.50

### SEWER TILE FOR WELL CASING.

Cement tile have found a very good market in the use of well casing. The low cost of MIRACLE Cement Casing or Curbing gives you the vital argument which cannot fail to secure the business wherever casing or curbing is used. In many sections of the country sanitary casing is vital to good health. The great scourge of typhoid may be overcome by protecting your drinking water. The majority of cases may be traced directly to impure drinking water where wells have been bored through strata of questionable quality and where the surrounding conditions demand casing to insure absolute purity.





# Bevel and Tongue Attachment

## MIRACLE BEVEL AND TONGUE ATTACHMENT.

Miracle Bevel and Tongue Attachment adds greatly to the completeness of the Miracle Outfit for making cement sewer pipe and drain tile. It consists of two bevel rings. The bottom ring beveled on the inside and the top ring beveled on the outside forming the standard bevel and tongue pipe or tile as shown in the illustration.

### ADVANTAGES.

The Bevel and Tongue Attachment enables one to lay a line of pipe very easily, and hence very economically, at the same time the best results can be obtained.

It is the best possible form of pipe for well casing, both because it makes a better casing and because it is more easily and economically laid. In using a 24-inch pipe for this purpose it requires a bore 4 inches less in diameter than the 24-inch bell end pipe. This alone is a great saving.

There is no chance for poorly connected or leaky joints.

The expense of making this form of pipe is no greater than in making the ordinary straight tile. The little additional labor is easily balanced by the saving in material.

They command larger prices, hence the margin of profit is greater.

### PRICES.

4-in. Top Ring ....	\$.80	16-in. Bottom Ring ..	.85
4-in. Bottom Ring ..	.50	18-in. Top Ring ....	1.20
5-in. Top Ring ....	.80	18-in. Bottom Ring ..	.90
5-in. Bottom Ring ..	.50	20-in. Top Ring ....	1.30
6-in. Top Ring ....	.80	20-in. Bottom Ring ..	1.00
6-in. Bottom Ring ..	.50	24-in. Top Ring ....	1.50
8-in. Top Ring ....	.80	24-in. Bottom Ring ..	1.15
8-in. Bottom Ring ..	.50	26-in. Top Ring ....	2.00
9-in. Top Ring ....	.85	26-in. Bottom Ring ..	1.50
9-in. Bottom Ring ..	.55	30-in. Top Ring ....	2.25
10-in. Top Ring ....	.90	30-in. Bottom Ring ..	1.90
10-in. Bottom Ring ..	.60	36-in. Top Ring ....	2.90
12-in. Top Ring ....	.95	36-in. Bottom Ring ..	2.55
12-in. Bottom Ring ..	.65	42-in. Top Ring ....	3.75
14-in. Top Ring ....	1.00	42-in. Bottom Ring ..	3.25
14-in. Bottom Ring ..	.75	48-in. Top Ring ....	4.75
15-in. Top Ring ....	1.05	48-in. Bottom Ring ..	4.10
15-in. Bottom Ring ..	.80	60-in. Top Ring ....	6.00
16-in. Top Ring ....	1.10	60-in. Bottom Ring ..	5.25

### OPERATION.

The bottom ring is placed at the bottom of the mold before filling and must be left in place for 24 hours after the mold proper is removed. In order to release the ring of the Bevel and Tongue Attachment the tile is turned upon the edge of the ring (not of the tile), which means that the cement need be only hard enough to hold the tile together when laid upon its side.

The top ring is equipped with handles to enable the operator to turn it back and forth until it shapes the bevel on the upper end of the tile. It is removed immediately before removing the shells.

Only one top ring is required with each size outfit and about ten bottom rings are sufficient for the average beginner.

Acorn Ridge, Mo., May 5, 1908.

Miracle Pressed Stone Co., Minneapolis, Minn.

Dear Sir:—Having bought the tile machine you sold E. M. Tucker and having been working it today, will say, it can't be beat, as I am in the well business it just fits my business exactly, and am now figuring on a land tile of about four inches and so find enclosed stamps for 25 cents for which send me your Big Catalogue for which I may select what I need as I expect to send for more bottom rings in the near future. And at that time will enclose a testimonial for which you may use if you like.

Thanking you for your kindness, I beg to remain,

Yours truly, C. E. BENTON,  
Stoddard Co. Acorn Ridge, Mo.

Townsend, Mont., April 20, 1907.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Please ship to Archie McMillan, Winston, Mont., the following:

1 8-in. Straight Tile Machine ..... \$27.00  
Yours truly, BROADWATER COUNTY,  
Per John Doherty.

Townsend, Mont., June 13, 1907.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Please ship to John Doherty, Townsend, Mont., the following:

1 8-in. Straight Tile Mold ..... \$18.00  
1 12-in. " " ..... 22.00  
1 24-in. " " ..... 35.00

Yours truly, \$75.00  
BROADWATER COUNTY, Per John Doherty.

Fort Shaw, Mont., June 25, 1907.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Please ship to S. B. Robbins, Vaughn, Mont., the following:

1 8-in. Straight Tile Machine ..... \$18.00  
1 12-in. " " " ..... 22.00  
1 18-in. " " " ..... 27.00  
1 24-in. " " " ..... 35.00  
1 36-in. " " " ..... 50.00  
2 8-in. Outside Castings ..... 2.50  
2 12-in. " " " ..... 3.00  
2 18-in. " " " ..... 4.50  
2 36-in. " " " ..... 9.00  
10 8-in. Inside Pallets at 75c ..... 7.50  
10 12-in. " " at 95c ..... 9.50  
10 18-in. " " at \$1.25 ..... 12.50  
10 24-in. " " ..... 16.50  
10 36-in. " " ..... 45.00  
2 24-in. Outside Casting: ..... 6.00

Yours truly, \$226.00  
U. S. RECLAMATION SERVICE,  
Per C. B. Robbins





Tile Yard at Grand Junction, Iowa.

Conejos, Colo., May 16, 1907.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Please ship to H. C. Mullins, County Commissioner, Alamosa, Colo., the following:

1 36-in. Straight Tile Mold.....	\$50.00	
1 20-in. " " ".....	30.00	
	<u>\$80.00</u>	
Less 2 per discount.....	1.60	\$74.40
1 36-in. Top Ring (bevel and tongue)....		2.90
1 20-in. " " ".....		1.30
5 36-in. Bottom Rings (bevel and tongue) at \$2.25		12.75
5 20-in. " " " at 1.00		5.00
1 Miracle Hand Mixer.....	110.00	
Less 2 per cent discount.....	2.20	107.80
		<u>\$208.15</u>

Yours truly,

HARRY A. RUSSELL.

By order of Board of County Commissioners, Conejos County.

Conejos, Colo., July 5, 1907.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Please ship the following to H. C. Mullins, Alamosa, Colo.

1 12-in. Straight Tile Mold.....	\$22.00	
Less 2 per cent discount.....	.44	\$21.56
1 12-in. Top Ring (bevel and tongue).....		.95
20 12-in. Bottom Rings (bevel and tongue) at 65c.		13.00
20 12-in. " " " at \$1.00		20.00
12 36-in. " " " at \$2.55		30.60
		<u>\$86.11</u>

Yours truly,

HARRY A. RUSSELL.

By order of Board of County Commissioners, Conejos County.

COST \$90.00 PER THOUSAND.

Pocahontas, Iowa.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—Since getting your tile outfit, I have sold 1,600 feet of 12-inch tile, and I think I shall be able to work up a nice business in a short time. It costs about \$90.00 per thousand feet to make 12-inch tile. I make my mixture one to three-and-a-half; sand costs \$1.00 per yard; labor, \$1.50 per day. There is lots of figuring here on cement work, and I have sold Miracle Hollow Blocks for a number of foundations for houses.

Yours very truly,

J. O. BURINGTON & CO.

Fort Morgan, Colo., April 18, 1908.

Miracle Pressed Stone Co., Minneapolis, Minn.

Dear Sirs:—Since we have put in your tile machines, we have learned what a loss there was to the stone business without them. They do all, and more, than you recommend for them. Two men in our factory are making more tile than you allow for three men, and mix by hand.

I sold a drive crossing to a man in town, and he placed a straight 15-inch tile above ground in the irrigating ditch, and it came a good six inches above ground level, and shoveled four inches of dirt over the top. The next day he hauled three loads of hay over the tile. Two of the loads weighed one and one-half tons each. Now they are hauling large loads of lumber over it to build a new house, and we have a contract from the city to furnish them all their tile.

Respectfully,  
(Signed) COLE & CHAMBERS.

Edmond, Okla., June 23, 1906.

Miracle Pressed Stone Co.,

Minneapolis, Minn.

Gentlemen:—Your letter at hand. Can say that we are well pleased with tile molds. We have about four hundred 12-inch and 18-inch made up, and have a good trade on them.

Respectfully,  
THOS. HOLLIS LUMBER CO.





# THE EASE WITH WHICH Ts, Ys AND CONNECTIONS AND SPECIALS ARE MADE OF MIRACLE CONCRETE PIPE

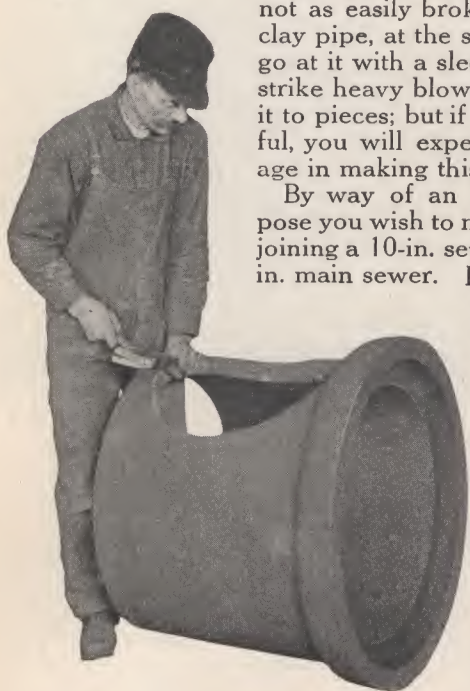
The making of Ts, Ys and connections, and other special pipe is, like all other parts of the cement pipe business, a very simple matter when you understand how to go about it. We give herewith several views, showing the different steps to be taken in making special pipe, and if you follow these simple instructions, you cannot go wrong.

These specials always sell at a very handsome profit, and require no extra investment on your part to make them. They are made from regular stock pipe made on your regular outfits. In the sewer pipe market a T or Y joint usually sells at from 2 to 4 times the price of a regular length of the main pipe. You have no extra investment in equipment and the only extra cost to you is the labor of making, which, as we show you herewith, is a very small matter.

The first thing we want to caution you about is to be careful. While a concrete pipe is not as easily broken as a vitrified clay pipe, at the same time, if you go at it with a sledge hammer and strike heavy blows, you will break it to pieces; but if you will be careful, you will experience no breakage in making this special pipe.

By way of an illustration: Suppose you wish to make a T joint for joining a 10-in. sewer pipe to a 24-in. main sewer. For this purpose

you should have some pieces of 10-inch pipe, made not over 12 inches in length, that is 12 inches above the bell. Select a good, sound, well tamped 24 inch pipe from your stock that is two or three weeks old. It will cut best at



this time, but can be cut at any time and at any age. Bed the large pipe in sand, so as to keep it from rolling, and give it a soft bed to lie in, take the small section of pipe to be joined to it, cut it so that the end of it will fit the outer shell of the large pipe at right angles. Set the small pipe on the large pipe and with a pencil or sharp instrument, describe the circular line on the outside of the large pipe around the end of the small pipe, where you wish to cut the hole. Wet the large pipe thoroughly, then, with hammer and chisel, cut a line around the hole you wish to make about half an inch inside of the line that you have drawn. Keep on cutting carefully until you get about half way through the pipe all the way around, then cut the balance of the way through in three or four places about half way around the hole, and tap the piece gently from the inside, and the piece will come out easily, just where it has been cut.

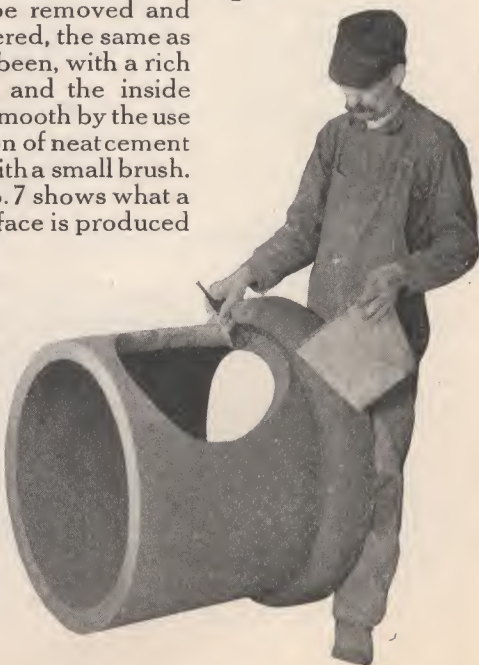
Now trim or rim out this hole with a chisel as shown in Figure 1 until it fits the pipe that you wish to insert. After this hole has been trimmed so the small section will slide in easily, wet the end of the small pipe to be joined and the large pipe where it has been cut thoroughly, and go over it with a solution of neat cement of about the consistency of thick cream, a small brush being used as shown in Figure 2. Then insert the small section of pipe in the opening where it is to be joined to the large pipe as shown in Figure 3 and brace from the inside so as to hold it in position, being careful that the end of the small section does not project beyond the inside of the shell of the larger pipe. After this has been firmly braced in position, mix up a cement mortar so it will handle easily with a trowel, about one part of cement and one part of fine sand, and fill around the junction, as shown in Fig. 4. This junction at the angle where the two outside surfaces meet can be built up and strengthened in this manner with cement mortar to give any required strength, and it really becomes the strongest part of the pipe. Illustrations No. 5 and 6 show how the bond between the two different sizes is strengthened by this building up process.

This joint is then wiped with a solution of neat cement, the same as was used at the start, the same as a plumber wipes a lead joint. In this manner a very strong and durable, as well as a neat looking pipe is produced.

The next day the braces from Fig. 2, the inside can be removed and the inside plastered, the same as the outside has been, with a rich cement mortar, and the inside made perfectly smooth by the use of the solution of neat cement water applied with a small brush.

Illustration No. 7 shows what a nice, smooth surface is produced

at the inside of the joint. These illustrations Nos. 5 and 6 show a 24-in. two foot length of pipe with 10-in. connection. Under ordinary conditions the 24-in. pipe costs about 74c and the 10-inch with bell about 23c.



## HERE ARE THE PRICES WITH WHICH MIRACLE CONCRETE PIPE COMPETES

### WESTERN PRICE LIST.

#### VITRIFIED PIPE.

Size of pipe Inside diameter.	Straight pipe Price per foot.	T & Y Junctions Price each.	Dbl junctions and breeches Price each.
24 inch.....	\$2.50	\$10.00	\$15.00
22 ".....	2.10	8.40	12.60
20 ".....	1.75	7.00	10.50
18 ".....	1.50	6.00	9.00
15 ".....	1.00	4.00	6.00
12 ".....	.75	3.00	4.50
10 ".....	.60	2.40	3.60
9 ".....	.50	2.00	3.00
8 ".....	.45	1.80	2.70
6 ".....	.30	1.20	1.80
5 ".....	.25	1.00	1.50
4 ".....	.20	.80	1.20
3 ".....	.15	.60	.90

Discounts on above prices 55 to 65 per cent at wholesale in carload lots.

Prices on 27, 30, 33 and 36-inch Culvert Pipe in carload lots only quoted upon application.



## MAKING Ts, Ys AND CONNECTIONS.---Continued.

### Concrete Sewers Officially Endorsed.

Mr. J. P. Sherer, of the Board of Public Works, Milwaukee, in an address before the Northwestern Cement Products Association, held in Chicago in December, 1907, made the following remarks, bearing on the subject of concrete pipe:

"Having been connected for many years with the concrete industry, I have passed through the various phases of evolution that have taken place from time to time in concrete construction. \* \* \* I was requested to speak here particularly on the construction of cement for sewer pipe, and having been connected in Milwaukee with a firm making sewer pipe, it was thought I might tell you something of interest on that subject. \* \* \*

According to my recollection, our concern has been making blocks about twelve years, and has been engaged from twelve to eighteen years in making trimming for stone and concrete sewer pipe. I have watched the business grow, the product aggregating in value from five to seven thousand the first year, to approximately one hundred thousand per year at the present time. \* \* \* The cement pipe factory we used at times for making blocks also.

Few people realize the extent to which concrete sewer pipe is used. Out of 300 miles of sewerage in Milwaukee, as near as I can learn, over 200 miles is made of concrete, which speaks well for a product of that kind. In all places where we have had to replace the sewers that were put in in the early history of Milwaukee, we found the concrete pipe to be intact. For instance, only recently, we were required to take up 12-inch pipe and replace it with 20-inch, and for the entire length that pipe was found to be in elegant condition—very much harder than when first placed there. There was no defect or flaw from one end to the other, and there were fourteen or fifteen hundred feet on that line of pipe.

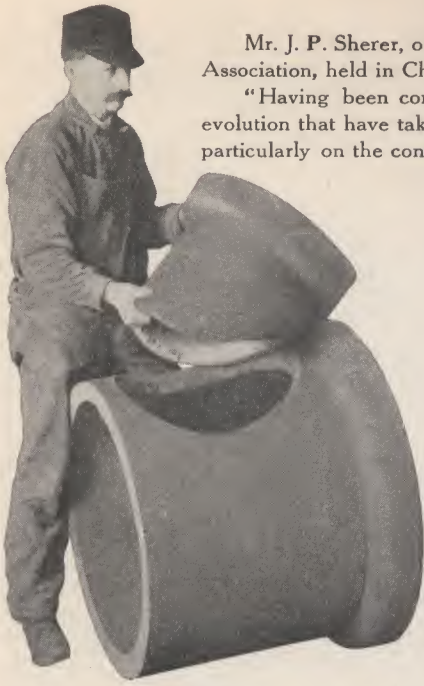


Fig. 3.

Our engineers (of the Board of Public Works) recommend concrete pipe to be the best for the conveying of sewerage that is to be had. We have used various kinds of aggregates for making this pipe; at times crushed stone and sand; and sometimes gravel and sand. We generally use the ordinary bank gravel, which is the cheapest we can get, and find it sufficient for making the pipe. The pipe is rammed or tamped. Three years ago we put in an air tamper. Before that time we used hand tamping entirely.

Ts and Ys and connections are put on the pipe after it is cured. We make a hole for the connection, place the junction on the inside and cement it up. In joining the pipe, we cleanse the broken edges, and get good results. It is a good idea after thoroughly tamping both ends, where you wish to make the union, to make a solution of neat cement, about the consistency of cream, and apply it to both sides. Simply wipe the joints with this solution, as the plumber wipes the joints of lead pipe with molten lead. It never cracks at that point and we have had no trouble whatever. We put junctions in our pipe sometimes twelve to eighteen inches in size."



Fig. 4.

## REDUCERS AND INCREASESERS.

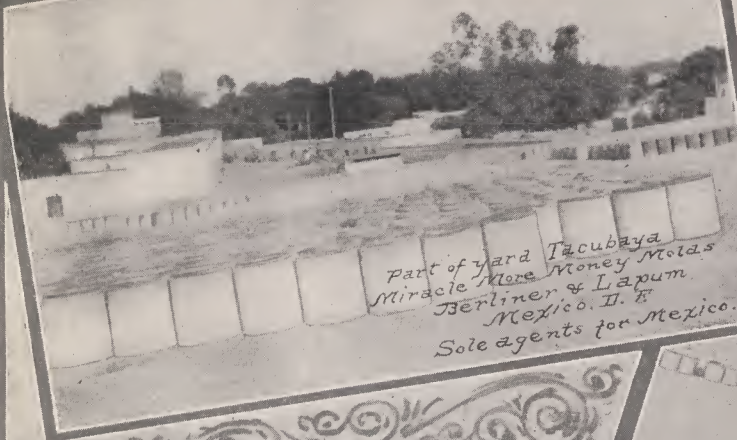
Forms for making Reducers and Increasesers for both bell-end and bevel-and-tongue end can be furnished on short notice.

In asking for prices please be sure to specify size at each end, and whether Reducer or Increaseser is desired. Also state whether the pipe is bell-end or bevel-and-tongue.





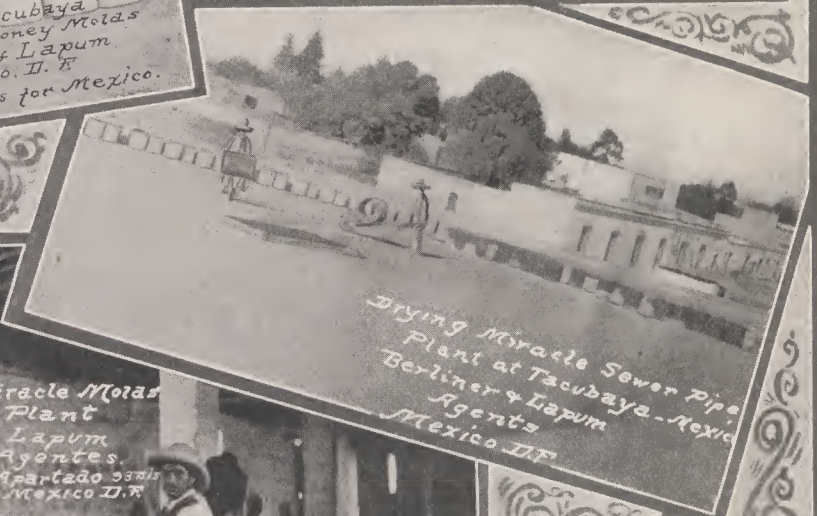
# The MIRACLES IN MEXICO



part of yard Tacubaya  
Miracle More Money Molds  
Berliner & Lapum  
Mexico, D. F.  
Sole agents for Mexico.



Berliner & Lapum  
Agents  
Mexico, D. F.



Drying Miracle Sewer pipe  
Plant at Tacubaya - Mexico  
Berliner & Lapum  
Agents  
Mexico, D. F.

This is one of  
the plants which  
in 1907 started  
making pipe for  
500 miles of  
Ditch



working Miracle Molds  
Tacubaya Plant  
Berliner & Lapum  
Unicos  
Agentes  
Apartado 53715  
Mexico, D. F.



Berliner & Lapum  
Agents for the Republic of Mexico  
Calleion de la Condesa #16  
Mexico, D. F.



Tacubaya Plant  
Miracle Molds  
Berliner & Lapum  
Agentes.



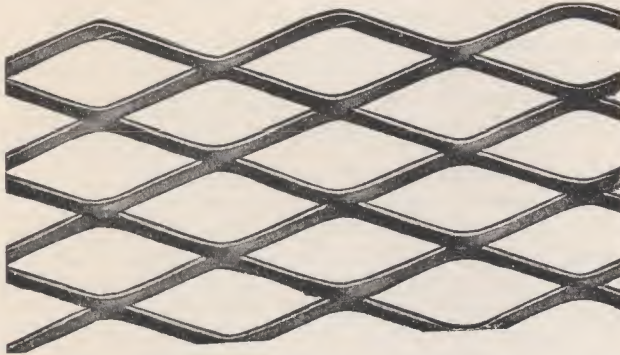
24" Miracle  
Sewer pipe  
Miracle More  
Money Molds  
Make all sizes

Mexican labor readily adapts itself  
to making Miracle Concrete Products.



# Reinforcement for Concrete Sewer Pipe And Groove and Tongue Tile

A large amount of Miracle cement sewer pipe has been used in constructing irrigation systems and for other purposes where water is carried under heavy internal pressure. The internal pressure per square inch is approximately about a half pound to every foot of head and oftentimes we have been called on for information as to how a cement pipe should be reinforced to carry water having from 50 to 200 foot of head. We have therefore made a table which is shown on this page, giving the size of sheet of expanded metal necessary for the different sizes of pipe. This expanded metal is furnished in the 3-inch mesh of No. 16-gauge material, which is strong enough for any internal pressure up to 100 pounds per square inch.



It is unnecessary to reinforce cement pipe when only subjected to 25 lbs. internal pressure per square inch or less.

Florence, Colo., April 17, 1908.

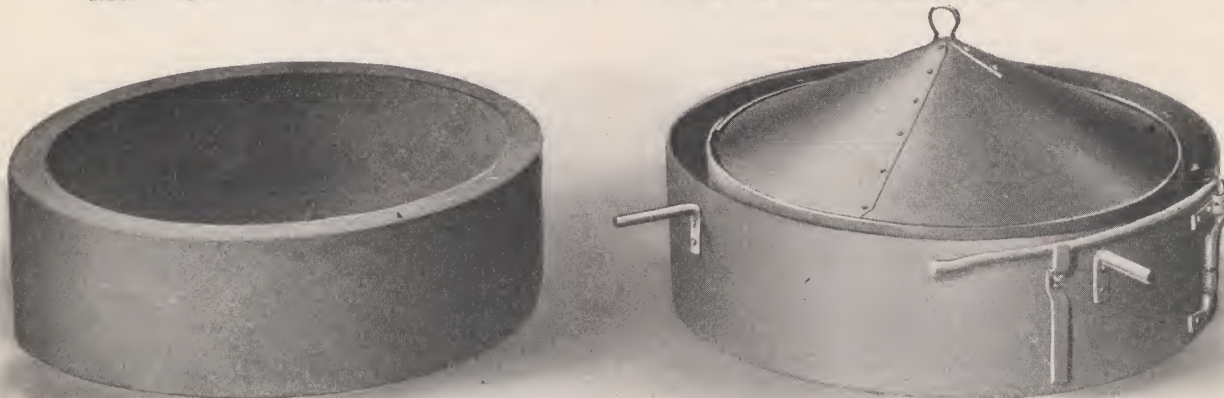
Miracle Pressed Stone Co.,

Minneapolis, Minn.

Gentlemen:—We wired you today as follows: "Quote us by wire on sixteen inch mold with sixty bottom and two top rings. Send catalog," to which we received your prompt reply quoting us price of \$79.00, and we would ask that you please send us by freight immediately the following:

- 1 16-inch Pipe Mould, complete.
- 60 Bottom Rings for same.
- 2 Top Rings for same.

## MIRACLE CONCRETE SLEEVE JOINT FOR IRRIGATION PIPE



In the great irrigation projects in the United States it is often necessary to carry water under very heavy internal pressure for the pipe line. From the actual work done, we find that the sleeve joint makes a much stronger joint than either the bell or the bevel and tongue connection for this particular purpose.

The sleeve itself is a piece of straight concrete pipe 8" long and with an inside diameter large enough to permit the ends of two straight lengths of pipe to be inserted into it. It is grooved so that with the use of a cement mortar a water tight connection is had. The sleeve can be reinforced with metal the same as the full length pipe, thus securing double strength for the joint, which makes the joint the strongest part of the pipe line.

The sleeve mold being constructed on the same principle as the straight tile mold, is immediately removable from the concrete, and for that reason it does away entirely with a large investment in bell and bevel and tongue attachments.

The price of the sleeve mold for any size of pipe is one-half the price of the straight tile mold of that size.

The reinforcement is placed in the mold near the outside shell when the tile are to be made for internal pressure, thereupon the concrete is tamped into the mold. After the tamping is done, the forms can be removed, and, after the pipe has been cured by regular process of curing pipe, it will be found that the finished product is almost indestructible.

For the convenience of customers, we give as follows a table showing the size of sheets necessary for the different diameters of pipe, and the price of each sheet f. o. b. factory.

Diameter of Pipe	Length	Size Sheet Required	Sq. Ft.	Cost for Reinforcement Per Lineal Ft. of Tile	Cost for Reinforcement per 2 Ft. Pipe
12 inches	2 feet	2 ft. x 3 ft.	6	12 cts.	24 cts.
15 "	2 "	2 " x 3 ft. 9in	7½	15 "	30 "
16 "	2 "	2 " x 4 "	8	16 "	32 "
18 "	2 "	2 " x 4 " 6in	9	18 "	36 "
20 "	2 "	2 " x 5 "	10	20 "	40 "
24 "	2 "	2 " x 6 "	12	24 "	48 "
26 "	2 "	2 " x 6 " 6in	13	26 "	52 "
30 "	2 "	2 " x 7 " 6in	15	30 "	60 "
36 "	2 "	2 " x 9 "	18	36 "	72 "
42 "	2 "	2 " x 10 " 6in	21	42 "	84 "
48 "	2 "	2 " x 12 "	24	48 "	96 "

Prices subject to change without notice.

When carrying water under heavy pressure it is sometimes advisable to waterproof the pipe. We recommend R. O. U. See p. 126.

Replying to your favor of the 13th, asking us to give you some testimonial regarding your product, beg to state that we cannot too highly recommend your goods. We are now turning out some 1200 to 1500 feet of pipe daily of 8, 10, 12 and 24 inch, and same is giving us the utmost satisfaction. When we have completed the laying of some 150,000 feet of pipe, we feel confident that we will have the most complete irrigation system in America. If at any time we can be of service to you please do not hesitate to call on us.

Very truly yours,

The Beaver Land & Irrigation Co.

By B. H. Hopkins,

Assistant Secretary.



# INSTRUCTIONS AND SPECIFICATIONS TO THE MANUFACTURER OF MIRACLE CEMENT TILE AND SEWER PIPE.

## PLANT AND EQUIPMENT.

In the manufacture of cement sewer pipe or drain tile on Miracle molds, it is necessary, as in the manufacture of any other cement product, to have sufficient shed room for two or three days' run, preferably three days. Pipe should be made on a cement floor or on wooden pallets. In case of the latter the number of pallets required will, of course, be governed by the number and size of the tile made, the larger sizes requiring a fewer number of large size pallets. It is necessary to have enough pallets, however, for at least two days' run, as the product should remain on the pellets for 48 hours, when it can be safely removed and the pallets used again.

An abundance of water is one of the most important features in the manufacture of any cement product. If city water is not available, a tank should be procured to supply of water under pressure for the purpose of sprinkling and curing. With this method a large number of pipe can be taken care of by having a waterpipe to connect with the tank and using a hose to distribute it.

The building or shed for making the cement pipe should have all sides closed in. Windows on the sunny side should be covered and doors kept closed as much as possible, as draughts of air or direct contact with the sun's rays are apt to dry out the material too rapidly.

If a cement floor is used, it should be very smooth. A wooden floor is not practical on account of the fact that it is usually not rigid enough to withstand the jar occasioned by tamping, and this jar will damage the newly made tile. Where no floor is used, the ground should be leveled off and the tile piled directly on the ground.

The size of the storage yard will, of course, be governed by the amount of stock carried. Cement tile can be piled up the same as any other tile or pipe and sufficient yard room should be had to pile the different sizes separately.

## METHODS AND MIXTURE.

For making a first-class article of sewer pipe, a 1 to 3 mixture is recommended. This, of course, applies to the semi-wet process, which is most generally used.

For making drain pipe in sizes 12 inches or under, a leaner mixture of 1 to 4 or 1 to 4½ may be used, but for drain pipe of larger sizes than 12 inches in diameter, we would always recommend the use of as rich a mixture as 1 to 3. A sufficient profit can be made in competition with clay pipe on this basis, and the quality of the product kept to the highest standard.

## CEMENT.

The same specifications hold good in making cement pipe and tile, as in any other cement product, viz., any standard brand of pure cement, which will pass the specifications assigned by the American Society for testing material.

## SAND AND GRAVEL.

Sand and gravel that pass through a ¾-inch mesh screen, or ½-inch mesh shaking screen should be used. If it is correctly mixed, all sand will make a first-class product, but a better pipe will be made by a reasonable proportion of small pebbles which will pass a screen of the size indicated.

On account of the great variety of sand in the different sections of the country, it is impossible to give a set specifications which would be of general value. Necessity often compels the use of materials at hand and where

sand is very fine we would recommend the use of a little more cement, say 1 to 2½ mixture, to avoid any possible chance of weakness in the product, occasioned by very fine sand.

Sand should be reasonably clean and free from loam, although experiments have shown that a small amount of finely distributed clay, up to 5 per cent of the whole is not of any detriment to sand for use in making cement pipe or tile. In fact, the presence of this smaller percentage of clay, providing it does not appear in balls or lumps, makes the material work better.

Quoting from Baker's "Masonry and Construction": "Mortar containing a small percentage of clay is much more plastic, dense and waterproof, and such mortar is not affected by the presence of water."

At a session of the National Association of Cement Users extended discussions have brought out the information that many experiments have been made with sand containing a small percentage of clay, and that up to 5 per cent it is not detrimental and has no bad effect on the finished product. However, in using sand containing foreign matter, you are treading on dangerous ground and should have tests made to ascertain what percentage of this foreign matter is present, so as not to use material that would weaken your product.

## MIXING.

Having selected your material, the subject of mixing should be given very careful attention. The sand and gravel used should be perfectly dry when the cement is mixed with it, as, when it is moist, it has a tendency to ball and the cement does not get evenly mixed with the sand and aggregate, thereby losing the strength of a large percentage of the cement. After the material has been thoroughly mixed dry so that it does not show streaks and is of even color throughout, sufficient water should be added so that the material will retain its shape when compressed in the hand, and when a ball so compressed is broken, it will break clean and the edges will not crumble.

The material should be used just as wet as possible without sticking to the molds, and great care should be taken that this instruction is followed, because cement must have sufficient water to cause it to thoroughly crystallize.

## HANDLING THE MOLDS.

### BELL END PIPE.

In making Bell End Sewer Pipe the inside casting for the bell or pallet should be kept free from rust by dipping in crude oil or a solution of paraffine, or R. O. U. mold wash to prevent it from sticking to the concrete, and cause it to remove easily from the finished product after it has set. Place the inside iron ring on a wooden pallet or on the floor, so that it sets firm and level with the outside of the Bell mold, clamp around it with "U" shaped clamps. The three projecting lugs or points serve to space the outside ring evenly, which is of proper shape of the outside of the bell of standard shape. This ring consists of two pieces fastened together by a "U" shaped fastening device. Then set the sheet iron cone in place on the inner ring, shovel and tamp in as much material as possible. The tamping into the bell should be done thoroughly, using a regular tamper, placed at an angle of about 45 degrees, so as to tamp back in under the shoulder of the bell. Care should be taken that the material is very firmly packed under this overhanging portion of the outside of the ring. Scoop out any surplus material, remove the cone and place the inside casing in place, expanding it to its largest size. After



the inside casing is put in place, a few handfuls of material should be placed in the mold and tamped once around, so as to fill up the mold nearly level with the top of the outside of the bell, then place the outside casing in position, contracting it to its smallest size by the outside lever for that purpose. Lugs on the inside bell casting hold the inside core in position, and lugs on the outside bell casting hold the outside casing in position. Then place the cone on the inside casing or core and commence shoveling in the material and tamp carefully, thoroughly and evenly. Be very careful in tamping the bottom of the pipe, so as to preserve an even thickness of the pipe all the way around. The tamping should begin immediately after the first shovelful of material is placed in the mold.

One man is sufficient to tamp up to sizes 20 inches to 24 inches in diameter, after that two men work together to better advantage. Under no condition should the mold be filled half full before being tamped. The tamping should be done carefully, striking even and regular blows, and care should be taken that the same amount of tamping is given entirely around the circle. A little practice will enable the operator to make absolutely perfect tile.

After the mold has been tamped full, remove the cone and finish the tile on the top with a trowel cut to fit the circular form of the mold. The inside core is then contracted and lifted out. One man can handle the cores for all sizes of pipe up to 15 inches in diameter. In sizes larger than this use the lifting bar with hooks, and two men should be used to remove the cores. Then loosen the "U" shaped fastenings which hold the bell in position, before loosening the outside casing, then expand the outside casing to its fullest size and remove it carefully. Then remove the outside of the bell attachment by taking off the "U" shaped fastenings and sliding the two parts of the bell attachment away from the finished tile. The inside ring for the bell must remain in place for about two days until the pipe is of sufficient strength to lay out on its side when the inner ring is removed, by a slight tapping from the inside. The best way to remove these rings is to tamp the top edge, which projects inside of the pipe, tipping the pipe at a slight angle, and tamp the ring lightly, which will loosen it quickly.

In the operation of removing the casting of the outside bell, great care should be taken that the green pipe is not jarred or injured, as it is very fragile at this time.

#### BEVEL AND TONGUE PIPE.

In making Bevel and Tongue pipe the bottom ring is placed in position on the floor, or on a wooden pallet, the same as the inside casting for the Bell End pipe. The inside casing is placed inside of this and expanded to its fullest size, and the outside casing is placed outside of it and contracted to its smallest size. Filling and tamping should proceed the same as in making Bell End pipe or Straight pipe, and when the mold is tamped full the finishing ring with two handles is used to finish the pipe at the top, making the opposite of the groove at the bottom. The inside and outside casings are then removed, the same as before.

#### STRAIGHT PIPE.

In making straight pipe for drainage purposes, the inside and outside casings are placed in position and the cone and hopper are used to direct the material into the mold. The tamping process should be even and careful, the same as in making other kinds of pipe. The centering of the inside core is accomplished by tamping and requires only a small amount of care, beginning in the bottom of the pipe, to make a finished product of even thickness on all sides.

#### CURING THE PRODUCT.

We now come to one of the most important features in the manufacture of concrete. It is the curing process, where there may be a great tendency to slight the work. We must follow out carefully the processes that have produced the best results, if we want a thoroughly first-

class product. Time and water are the essential requirements. The tile should be sprinkled plentifully as soon as they are set sufficiently. In a hot dry climate this can be done in a few hours, while in a damp climate they go for 24 hours before they need to be sprinkled. They should be sprinkled once or twice daily as long as the water is rapidly absorbed.

In the curing shed they should be kept free from air currents and sunshine for at least two or three days, when they can be taken out in the yard and covered with canvas, burlap or hay that will hold moisture, where they can remain for two or three days, when they can be stacked up in a pile and left for 30 to 60 days more at which time they are ready for the market.

A warm, damp atmosphere hastens the curing of any cement product, and this leads us up to what is known as steam curing.

#### STEAM CURING.

Many inexpensive devices for curing cement products by steam are in use in different sections of the country, both for making sewer pipe, tile, block brick and other products of this industry.

Dry steam should under no circumstances be used. Where steam curing process is to be employed, rooms should be provided which can be closed up reasonably tight and exhaust steam turned in from pipes running under the floor. No more than five pounds pressure should be used at any time on the pipe conducting this steam, and by means of this process the product can be cured much more quickly. Warmth accelerates the setting of the cement and the steam supplies sufficient moisture for a perfect crystallization.

Some successful steam curing plants have been erected without the use of a boiler of any kind, by simply using a few gasoline torches in curing the product, provided with thin pieces of sheet iron over the blaze with water dripping onto it. This water is turned into steam as fast as it drips and provides sufficient heat and moisture to cure the product in a first-class manner.

When the steam curing is used the product should be allowed to remain in the steam curing room or kiln from 18 to 24 hours, and the steam should not be turned on until the product is 12 hours old.

#### CAUSES OF TROUBLE.

If you have any trouble in operating your outfit at the start, it is probably due to one of the following causes: If your material is mixed too wet, the inside casing or core may remove all right, but the outside adheres to the material when expanded causing the tile to collapse. A little oil on the mold and a little less water in your mixture will remove this difficulty. On the other hand if the material is too dry, it is not plastic enough to stick together and the material will fall down when the mold is removed. Thorough and complete tamping is very essential to produce the best results. That is, the material should be tamped evenly, as it is shoveled into the mold, leaving no soft spots in the tile. Begin tamping when the first shovelful is placed in the mold and continue until the mold is full. Do not fill up the mold partially, that is, half way at a time, and then begin to tamp.

When making tile on a wooden floor, it should be perfectly solid so as not to jar the finished tile from the tamping of the one you are making. A little care in making your product and in following these instructions to the letter, will avoid any trouble in turning out a first-class tile and sewer pipe.

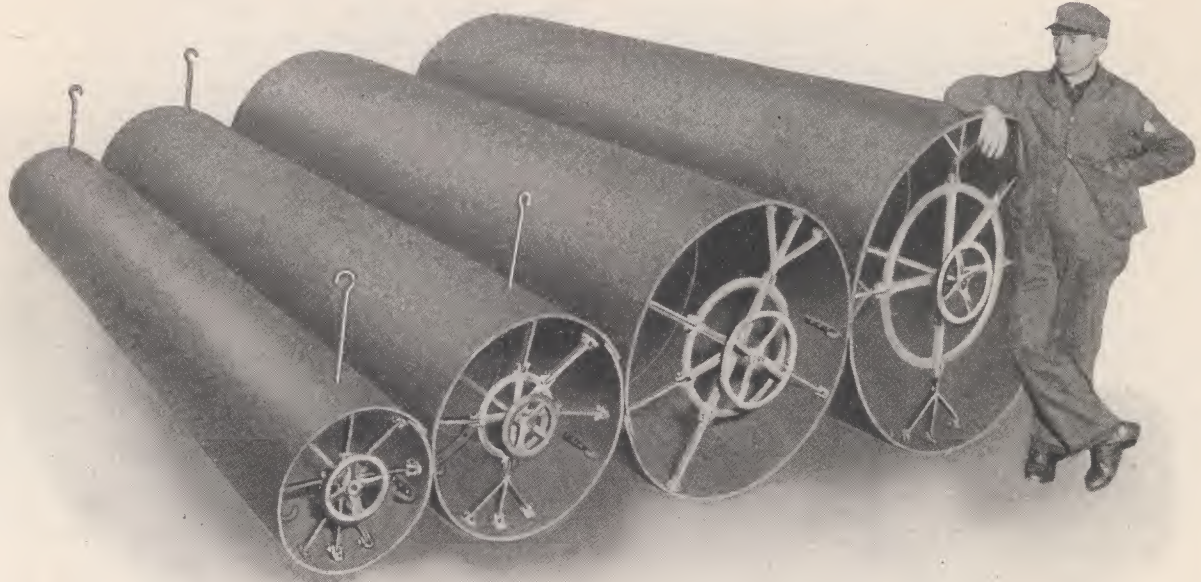
#### IMPORTANCE OF A FIRST-CLASS PRODUCT.

In going into this business make up your mind first that you are going to give your customers an honest product. Build up your business on this sort of a reputation. Don't forget that the clay pipe manufacturers are watching for an opportunity to pick flaws in your work, and will embrace these opportunities if you give them a chance. Cement pipe is superior in every way to the clay product, if you will make it so. Above all keep both the price and quality up.



# Miracle Collapsible Steel Forms For Concrete Culverts

One Form will Build a Culvert of any Length.



Built in Four Standard Sizes: 18-inch; 24-inch; 36-inch; 48-inch.

Concrete culverts cost very little, if any, more than wood culverts and bridges, which they take the place of: and they last indefinitely. That is why they are installed whenever the road authorities investigate their merits. An ordinary two-foot wooden culvert requires 800 feet, board measure, costing \$20 per thousand; and erection costs \$4; total \$20; lasts five years and must be rebuilt. A concrete culvert, same size, is built for \$30 and lasts sixty years. So that in sixty years the cheap wood culverts will have cost \$240 as against the concrete for \$30, not counting interest on the money. Corrugated steel culverts cost more than concrete and last

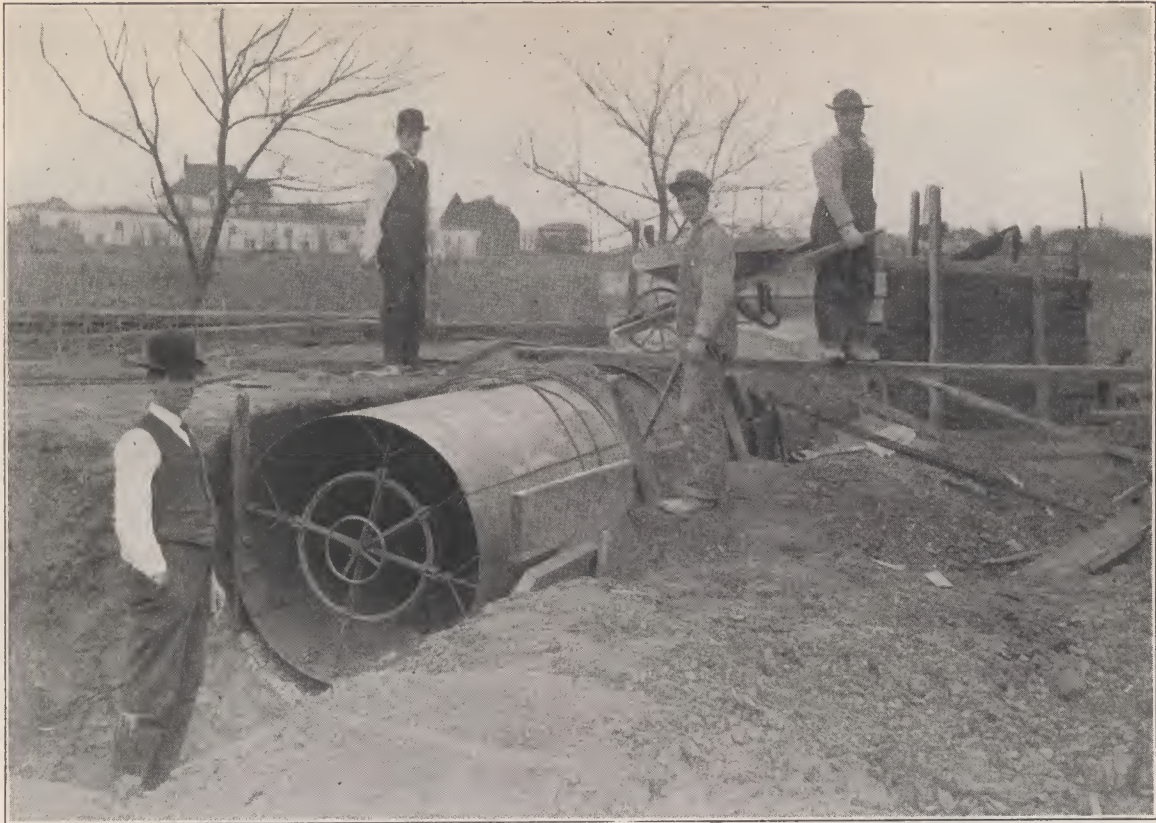
two to twenty years according to quality, but the quality cannot be determined when buying.

The actual scene of the construction of a culvert shown on this and subsequent pages is on the Lincoln Boulevard, near the home of W. J. Bryan. This culvert replaced a bridge, the old material of which was used in part in building retaining walls. We give on the following page an abbreviated report, which will prove suggestive to those who would like to know how the work is done. We also give table to show how to figure costs, which we have found to be very accurate.



Culvert on 20-Degree Diagonal. Before and After Withdrawing Forms.





Showing Method of Placing Metal Reinforcement.

How it was done, what materials were used and how much of each, how the forms were all withdrawn from one end of the culvert (because the water pipe was in the way), and other facts of interest are reported here in a way that is calculated to interest supervisors and other road authorities. It shows how easily a big culvert can be built with Miracle Forms, and at correspondingly low cost.

Wednesday afternoon, April 21, 1909; material on hand: Eight cubic yards of crushed stone, six cubic yards of sand, forty sacks of Portland cement; and two 4 x 10 ft. Miracle Collapsible Steel Culvert Forms.

That afternoon the old bridge was partially torn away and the west side of the runway was scooped out to make room for the culvert form. A foundation of concrete was laid, four inches thick, of three parts crushed stone, two parts sand and one part cement, thoroughly mixed. The Miracle Culvert Form was put into place, reinforcements in the form of bar iron and hog fencing bent over the form, and concrete material covered over the form, imbedding the reinforcing metal in a covering of concrete 5½ inches in thickness around the form, as shown by photographs 1 and 2. The north retaining walls, eight feet high, were placed near the end of the form (as shown in photograph) with retaining walls for wings eight feet high, ten inches thick at the bottom, and diminishing in thickness to four inches at the top. These wings were seven feet to the east and five feet to the west, set at angle of twenty degrees from the direction of the road (the culvert being diagonal).

Thursday afternoon we prepared the opening for the remainder of the culvert, but owing to cold and wet weather the form was not collapsed and withdrawn.

Friday we drew out the first form and placed that, together with the second form, in the ditch upon the usual foundation of concrete above described. The reinforcing metal used was ⅝-inch steel rods, cut in 6-foot lengths, about eighteen inches apart, bent and arched over the culvert forms, with hog wire fencing over the top, both carefully imbedded in concrete 5½ to six inches thick. We used the old lumber from the dismantled bridge for retaining walls on the east side all along, as is shown in photograph 1. Friday work is shown in photograph 3. Saturday was a disagreeable day, so no work was done.

The next morning the two forms were withdrawn in just four minutes, by one man, using a small block and tackle. Before drawing the forms we had placed the bed of concrete level in the bottom of the ditch, and used four grade stakes, 1x4 inches, driven in the solid earth about three feet apart, upon which the forms were rested. This guaranteed a perfect grade from one end of the culvert to the

other. We placed the form and wings (as shown in photograph 4) with about half of the form exposed, three men working about 4½ hours.

Monday the concrete was mixed and placed as previously described.

Tuesday the forms were drawn; one form was rolled to the road above, and the other form was set to complete the entire length of thirty-two feet. Wings were finished similar to those on the opposite side of the road, the concrete being all placed as shown in photograph. On the same day eight to ten inches of earth was covered over the culvert; and the photograph shows the carrying capacity forty-eight hours after the concrete was placed.

The total amount of material used for culvert and wings was, as follows:

Thirteen yards concrete, forty-four sacks of cement, sixty feet of ⅝-inch bar iron and 120 square feet of hog wire fencing; retaining walls and wing forms built of the old bridge lumber; cost of labor, \$33.75; reinforcing, \$8.10; cement, \$ ; crushed rock, \$ ; sand, \$—.

HOW TO FIGURE MATERIALS TO ESTIMATE COST

We give here a convenient table showing material required to estimate cost of a completed culvert, the basis being ten foot length for ease of computation. Compute by using local prices and you can tell what any size culvert will cost in any locality. Please note on opposite page what culverts cost in all the materials in common use.

Size of Culvert	MATERIAL FOR TEN FOOT CULVERT WITHOUT WINGS					
	Cu. ft. of Concrete	Cu. ft. of Strm. or Gvl.	Cu. ft. of Sand	Sacks of Cement	Reinforcing Wire	Reinforcing ½ or ⅝ rods
1 ft.	14	12½	6¼	2½	18 sq. ft.	None
1½ "	18½	16½	8¼	3½	22 "	"
2 "	24½	22	11	4¾	30 "	"
3 "	53	47½	23¾	9½	45 "	5 pcs 4½ ft
4 "	70	63	31½	13	60 "	5 pcs 6 ft.
5 "	118	106	53	24	75 "	7 pcs 8 ft.

Concrete in 1 ft. 1½ ft. 2 ft., 4 in. thick.  
Concrete in 3 ft. 4 ft. - 6 in. thick.  
Concrete in 5 ft. - - 8 in. thick.





Same Culvert 48 Hours After Completion. Note Weight of Three Teams Over the Center.

## WHAT W. J. BRYAN'S NEIGHBORS SAY.

F. O. Kinyon, Chairman. John Flynn. J. R. Bennett.  
Office of  
Commissioners Lancaster County.  
Lincoln, Nebraska.

April 28th, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—In behalf of the County Commissioners of Lancaster County, I want to express our sincere thanks for the courteous treatment at the hands of your representatives, Mr. Paul O. Cook and J. Walker Pope, who recently put in for us, over your collapsible steel forms, one of the best reinforced concrete culverts we have ever seen. This demonstration has convinced us that your modern way of constructing culverts will ultimately supplant the old and more expensive culverts now in use.

Yours very truly,  
J. R. BENNETT.  
JOHN FLYNN.  
F. C. KINYON.

Office of David Mohler,  
COUNTY HIGHWAY ENGINEER,  
Johnson County, Mo.

Warrensburg, Mo., June 19th, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.

Dear Sirs:—We are using the three and four-foot Steel Collapsible Culvert Forms that we bought from you, for building the one hundred concrete culverts for Johnson Co., Mo. I am seeing after the work, and we have finished twenty-one at this date. We are well pleased with your forms and think them a saving of more than 25% over the wooden forms. We are in a position to know, as we built sixty-two culverts on wood forms last year.

I thank you for your prompt shipment of the form web I ordered, also for furnishing it to us without cost.

Yours respectfully, DAVID MOHLER.

## THE JOLIET STEEL CONSTRUCTION CO.

Engineers, Contractors and Builders.  
Steel Bridges, Concrete Bridges and Culverts, Steel Frame Buildings,  
Girders, Etc., Steel Pipe for Culverts.

Joliet, Ill., May 7th, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—We are in receipt of your favor of the 5th, and in reply would say that we do not know what you would consider a severe frost strain on a concrete culvert. We have built culverts in this state and they have been subject to just as severe tests as could be possible in this climate, and we have never had a culvert fail yet, where they have been properly constructed and reinforced.

We think we have built more culverts, using the collapsible steel forms, than any other contractor in the state, and we have known them to freeze up almost solid half full of water, and water stand in them and freeze, thaw out, and refreeze, and we have the first one to come to our notice showing any bad results as yet.

Yours very truly,  
THE JOLIET STEEL CONSTRUCTION CO.  
By F. D. Mateer.

OFFICE BOARD OF COMMISSIONERS,  
Douglas County, Neb.

Omaha, Neb., June 7th, 1909.

Miracle Pressed Stone Co., Minneapolis, Minn.

Gentlemen:—We have just completed a concrete stone culvert, using your four-foot collapsible form, and your representative supervised the work.

The culvert is eighty-five feet in length, and having just completed an estimate of the cost, find it to be \$1.95 per foot.

We are well pleased with the culvert.

Yours truly,  
OSCAR J. PIGKARD,  
Chairman of Road and Bridge Committees.

## PRICE LIST OF MIRACLE STEEL CULVERT FORMS.

1 foot diameter, 6 feet long, each.....	\$ 32.00	3 feet diameter, 8 feet long, each.....	\$ 88.00
2 feet diameter, 6 feet long, each.....	49.50	4 feet diameter, 8 feet long, each.....	154.00
3 feet diameter, 6 feet long, each.....	66.00	1 foot diameter, 10 feet long, each.....	53.50
4 feet diameter, 6 feet long, each.....	118.00	2 feet diameter, 10 feet long, each.....	82.50
1 foot diameter, 8 feet long, each.....	42.75	3 feet diameter, 10 feet long, each.....	110.00
2 feet diameter, 8 feet long, each.....	66.00	4 feet diameter, 10 feet long, each.....	190.00

Special sizes made to order. Write for prices. Quotations on special sizes on request.



# THE CONCRETE BRICK INDUSTRY

LITTLE CAPITAL. BIG PROFITS.

The Miracle One-Man Machine, \$100 F. O. B. Minneapolis.

EXHIBIT 'Q'



## THERE IS A BIG AND GROWING DEMAND FOR CEMENT BRICK.

Owing to a growing scarcity in many cases and the poor quality of clay brick, there is a great and increasing demand for Cement Brick. On account of its familiar size and shape, many people will unhesitatingly use Cement Brick who would not consider a hollow Cement Block of larger size on account of certain skepticism. Cement Brick, therefore, is bound to play an important part in future concrete construction.

If you are in the Concrete Business you should have a Miracle Brick Machine. It will increase your business more than any other feature you could add.

If you are a dealer in building material, you should add this profitable line to your business, thus getting full measure of profit on your Cement.

If you are a larger user of building material a Miracle Brick Machine is an indispensable necessity. There is only ONE profit and you get it all. You are the manufacturer and the middleman all combined.

### A Few Words as to the Quality of Cement Brick.

To realize that this product is durable we have but to refer to concrete in other forms, used now by all great corporations in constructing their various buildings, railroads, bridges, and other permanent structures, used by the government in great works, both on land and under the water, and its use backed by all the eminent authorities and engineers. We can even go back further

and refer to perfect concrete more than two thousand years old; thus we dismiss the subject of durability.

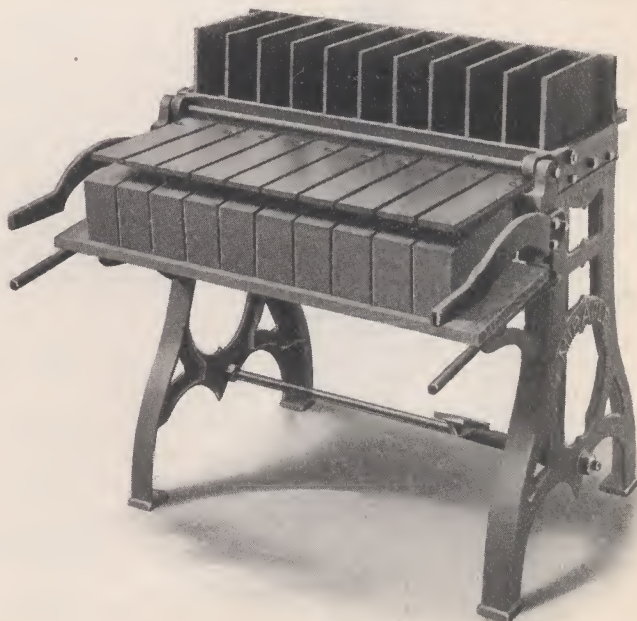
Can we say as much as to the durability of clay brick in any form? Building after building has been built of this new and practical product—cement—and we have yet to hear of unsatisfactory results. Cement brick are taking the place of pressed brick because they are better, and because they are cheaper.

## A ONE-MAN MACHINE.

On account of the preceding facts there has been a popular demand for a cement brick machine. A machine was wanted which would make perfect brick, a machine that could be operated so economically by one man that the product could strongly compete with, or so far undersell common brick, even in localities where the manufacture of clay brick is a leading industry, and a machine that does not require a large outlay of capital. This led us to produce our one-man machine, and we are proud to realize that for economy, utility, simplicity of operation and construction, and perfection of product, it is unequalled by any other brick machine in the market.

The "Miracle" one-man machine is not the result of some half developed ideas, as are many of the machines offered for sale. It is not an experiment or make-shift; it is not one of the kind that is designed merely to sell, regardless of the future consequences. It is thoroughly tested and guaranteed to stand any test.

The "Miracle" was designed after months of experiment by a competent engineer who has had wide experience in





# THE CONCRETE BRICK INDUSTRY—Continued.



Illustration No. 4—Tamping.

designing machines of this character as well as being familiar with the character of the product which this machine could turn out. In designing it, the faults of many of its predecessors were carefully noted and totally eliminated with the additional strong feature of the same capacity under only one man instead of two or three, as is the case with all other machines. The result is the Miracle Improved One-Man Brick Machine, a perfect machine, turning out a perfect product, a source of pride to its manufacturers, and a source of satisfaction and profit to every user.

## LIBERAL COST ESTIMATE FOR A FIRST-CLASS PRODUCT.

The following is a fair basis upon which to figure the actual cost of producing three thousand brick or one day's output.  $\frac{1}{4}$  mixture—1 part cement and 4 parts sand. Standard size,  $8\frac{3}{8}$  inches by  $4\frac{1}{8}$  inches by  $2\frac{3}{8}$  inches, each brick weighing 5.2 lbs.



Illustration No. 5.  
Applying an extra fine surface before tamping. Necessary only when making face brick.

## MIRACLE ONE-MAN CEMENT BRICK MACHINE.

3000 Brick  
is an easy  
Day's Work  
for the Average  
Workman.

This allows plenty of time to take care of the product of the day before.

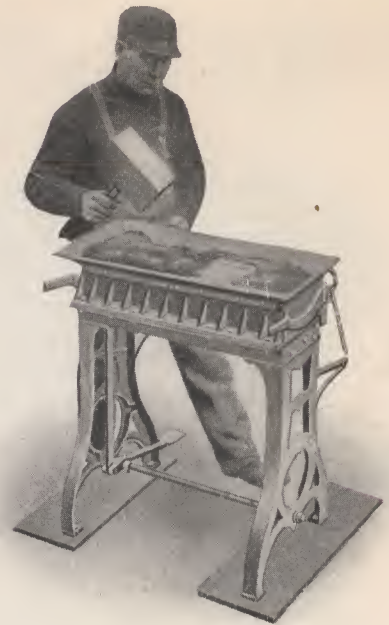


Illustration No. 6—Tamping with Mallet.

6 bbls. cement at \$1.60.....	\$ 9.60
5 yds. sand at \$0.50.....	2.50
1 laborer on machine.....	2.25
1 laborer mixing .....	1.75

Total cost of 3,000 brick.....\$17.10

This makes an average cost of about \$5.70 per M. for an absolutely first-class brick. If these figures do not agree with cost of material in your town, revise them accordingly, and you will see the cost of cement brick for you is very low. If you make your own brick, remember that you make the wages as above indicated plus the profit.

## FIRST OPERATION.—TAMPING.

Tamping is one of the most important operations, in that it must be thorough; although further tamping after the materials have become compact is a waste of energy.

First put the hopper in place, fill the mold level full, and tamp with the soft babbitt metal tamper (see illustration No. 4),

This  
means  
from \$10.00  
to \$20.00  
a day  
Profit for  
you, and  
the other  
fellow does  
the work.



Illustration No. 7—Floating Off.



# THE CONCRETE BRICK INDUSTRY—Continued.

## THE GREATEST ONE-MAN MACHINE.



Illustration No. 8—Releasing.  
The foot lever is first used for releasing

then throw in a little excess material and pound down with the wooden mallet as shown (illustration No. 6). When thoroughly tamped, remove the hopper, shoving most of surplus material off with the bottom edge as it is slid back over mold box.

### SECOND OPERATION.—FLOATING OFF.

This simple operation is done with a wooden float with handle similar to a plasterer's trowel (illustration No. 7). In floating always raise the front edge of float slightly, so that its inclined position will force the material down into the various partitions of the mold. If the float is held perfectly flat, so that its front edge scrapes off all the surplus with the first stroke, it is apt to dig in slightly and not leave sufficient material for finishing properly.



Illustration No. 9—Turning.  
Showing three surfaces holding the brick in position, viz: the face plates, the palette and the front plate.

We also  
Make this  
Machine  
for Brick  
 $8\frac{1}{8} \times 2\frac{1}{8} \times 3\frac{1}{8}$   
in Size.

Such Brick  
Cost 75c  
per M  
Less than  
Estimate  
on Page  
109.

A  
Quality  
Machine  
Built to  
Last a  
Lifetime.



Illustration No. 10—The Finished Product.

### THIRD OPERATION.—RELEASING.

Lay a smooth wooden palette on top of mold, turn the pivoted rod with projecting handles over top of palette, grip the handles extending out from the plate, and the handles on pivoted rod, thus clamping the palette firmly (see illustration No. 8), between them press down on foot lever, and at the same time turn the movable part of mold containing brick over toward you.

The function of the foot lever is to work a series of cams (see B, illustration No. 12), which push up against the bottom of the plates and assist in starting the turning operation.

It will be observed that by the use of this lever the turning is simply one operation, although here illustrated by two views. It does away with the necessity of jerking or pulling a plug or of other methods used in giving the turning operation the initial start. It makes possible an even, steady motion in half the time, and with less effort from the operator.

It will be noticed that the front plate to which the face or bottom plates are rigidly fastened is hinged to the frame of machine, so that it turns over toward the operator (see illustrations Nos. 9 and 10). When it has described a half circle, the mold proper is brought to a stop, but the pivoted rod and palette containing brick swings down, until it rests on the brackets (see illustration No. 11), thus swinging the brick out and away from the front plate, and down to clear the face plates. The palette with brick may now be removed and the movable part of machine turned back into place ready to begin another operation.

### THE FINISHED PRODUCT.—CURING.

Having the brick properly made, we now come to the simple, but very important part of the process—curing.

Brick should be sprinkled lightly as soon as they will stand the water without washing, in from four to twenty-four hours, according to weather, and should be kept constantly damp for eight to ten days. Under no circumstances should this product be allowed to dry during the first three or four days. By following these instructions, a thoroughly good, high class brick is assured.





Twin-City Rapid Transit Co.

LaGrange, Ga., April 24, 1907.

Miracle Pressed Stone Co., Minneapolis, Minn.

GENTLEMEN:—Your inquiry of the 17th received. I beg to state that I am using the Miracle Brick Machine, and from test I find that it is the best machine on the market. At the time I bought the outfit it cost me \$150.00. As to cost of brick, a great deal depends on the locality. I am making a very nice profit out of my brick, at \$15 per thousand.

Yours truly,

E. D. ROBERTS.

Roswell, New Mexico, June 29, 1907.

Miracle Pressed Stone Co., Minneapolis, Minn.

GENTLEMEN:—We want to express the utmost satisfaction we have experienced with your \$150.00 Brick Machine. Your claims as to capacity are none too large, and it is a business proposition that is certainly a good one.

When we need any more brick machines, we are going to buy a Miracle.

Very truly yours,

HONDO STONE MFG. CO.



Bozeman, Montana, July 17, 1907.

Miracle Pressed Stone Co., Minneapolis, Minn.

GENTLEMEN:—I have just completed a business block here that called for pressed brick. I used your Brick Machine and used Cement Brick instead of Pressed Brick with profit to myself and much satisfaction to the owner. I have two kinds of brick machines, but for the general contractor think yours the best.

Very truly yours,

F. W. VREELAND.

Tucson, Arizona, Feb. 17, 1908.

Miracle Pressed Stone Co., Minneapolis, Minn.

GENTLEMEN:—Your Cube Mixer, mounted on trucks with engine, brick machine and sewer pipe molds, has arrived, and gives perfect satisfaction. Have had experience with several concrete mixers, but the "Cube Mixer" surpasses them all.

Your Brick Machine does more than you claim for it. Two men at the machine turned out 1,000 perfect brick in 2 hours and 20 minutes. Made 15 feet of 8-inch sewer pipe in 1 hour and 30 minutes. Have a contract for several hundred feet. Please ship us your Double Air Space Block Machine at once.

Very respectfully,

LUNSFORD & WAKEFIELD,  
Tucson, Arizona.



A Montana Ranch House Built of Miracle Brick.



# THE CONCRETE BRICK INDUSTRY—Continued.

## THE MIRACLE ONE-MAN CEMENT BRICK MACHINE.

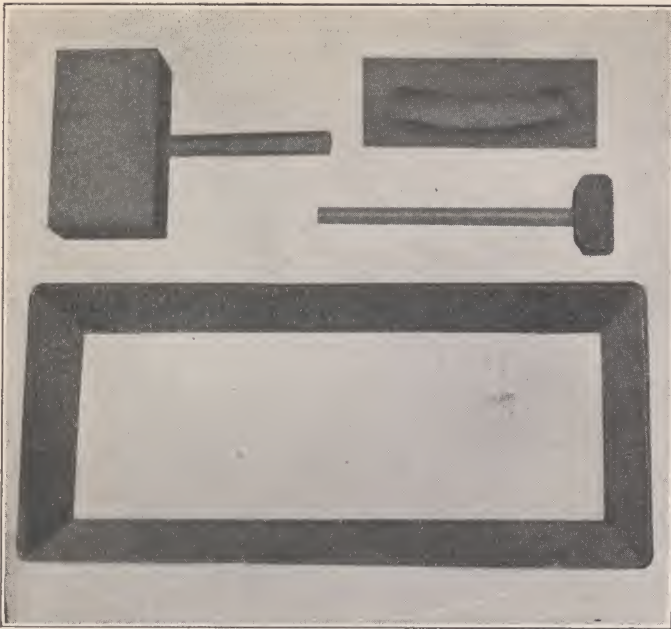


Illustration No. 11.  
Showing Hopper, Babbitt Metal Tamper, Hardwood Mallet and Float,  
which are given with each Brick Machine.

### THE ADVANTAGES ENUMERATED.

There is always a ready market for Brick.  
Cement Brick are much better and cost no more than common clay brick.  
Cement Brick can be made as good as the best pressed brick and for much less money.  
The Miracle Brick Machine is a One-Man Machine.  
It is easily and quickly operated.  
With the assistance of a foot lever the releasing is made one simple, quick operation.  
It is built on a strong serviceable standard.  
It is built for hard usage and lots of it.  
The faces are of extra heavy highly polished tool steel.  
All faces are separately detachable.  
All parts are absolutely rigid.  
It calls for a small investment.  
It yields big profits.

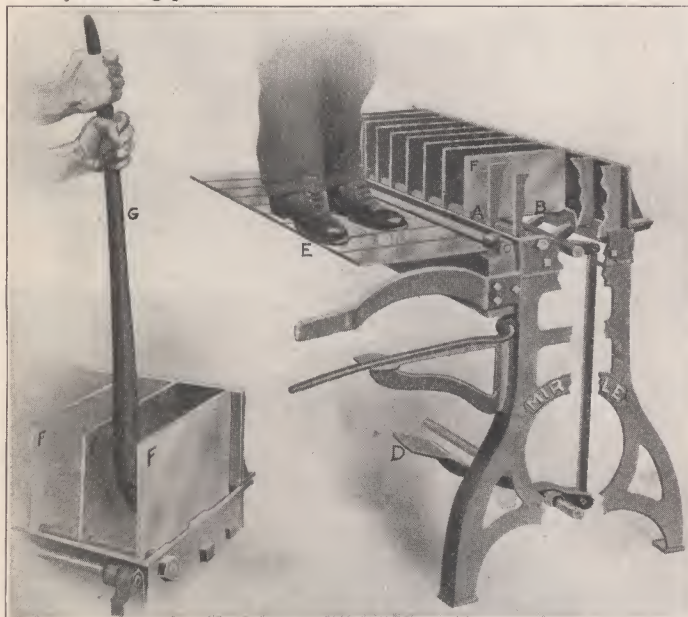


Illustration No. 12.  
All parts absolutely rigid. The division plates (F) are square and true and cannot be bent or broken. The face plates (E) are of such good, sound metal, and are so well attached that a man's weight, or even the weight of two or three men, will not so much as bend them.

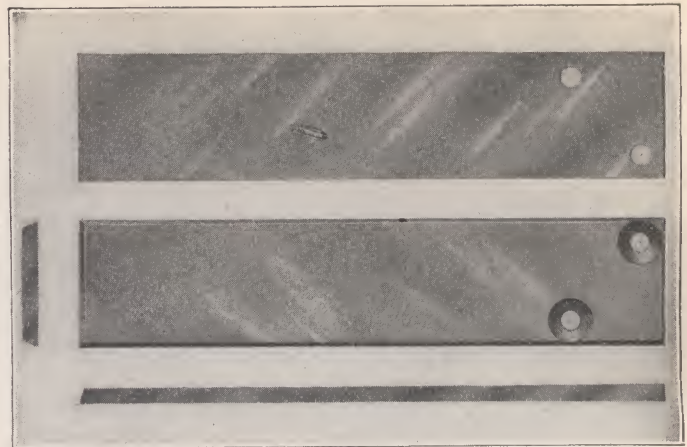


Illustration No. 13.  
The highly polished tool steel Plates form one of its many strong features.

### CONSTRUCTION.

Shipping Weight 335 lbs.

The Miracle One-Man Brick Machine is built on a neat and substantial design. The molding parts are supported on a heavy cast iron stand of graceful design and pleasing proportions.

### MOST DURABLY MADE.

In selecting a Brick Machine one wants the very best. He wants one that will stand hard usage and lots of it. He wants one that will not be constantly calling for expensive repairs. The Miracle Machine answers these requirements. It is strong in every part. From the heavy iron standard to the delicate mechanism of its molding parts, it is a most durable machine. It is made for a capacity of 3,000 to 4,000 brick every day for many years to come and must be of the very best quality or it would not stand the wear. The man who buys a brick machine expects to use it for all there is in it, and he therefore cannot afford to buy anything but the very strongest and best made machine. Better to pay a little more, if necessary, at the start, and buy a good machine that will last for years without repairs than to save a few dollars at the start and be squandering money for repairs for a year or two and then be obliged to buy another machine.

### THE FACE PLATES.

The face plates (Letter "E" illustration No. 12) constitute perhaps the most important part of the whole machine. Notice in Figure 13 the highly polished surface of each face plate on a Miracle Machine. The faces are all finished by hand after six or eight machine operations. Each face must have the very highest polish possible in order that the brick will release readily and surely, making a perfectly smooth surface brick. Each face plate is  $\frac{3}{8}$  inch thick and is made of the very best tool steel. This is a thicker and stronger face plate than is used on any other machine on the market. Observe in Illustration 12 that a man can stand out on the very edge of these face plates and not have the slightest effect. If they were not of such good quality steel and were not so strongly attached they would soon give way under severe usage and either break, bend or get twisted out of position. To produce perfect brick they must always be true. In illustration No. 13 you will notice the bevel edge of each face plate which permits all surplus material to drop out and not cling to the edge of the plate to be a nuisance to the operator. Each face plate is separately detachable, which is not the case with other machines of this nature. In case



# THE CONCRETE BRICK INDUSTRY—Continued.

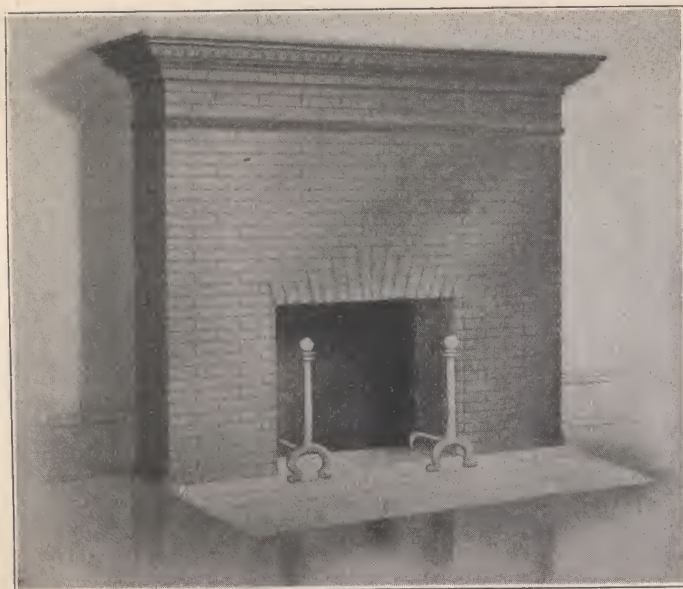


Illustration No. 14—A Cement Brick Fire Place.  
One of the Many Possibilities With Miracle Cement Brick.

of breakage or damage to a face plate (which is hardly probable with a Miracle Machine, but which is more than likely to occur with machines of inferior workmanship), a new face plate can be substituted at a very slight cost. In other machines a whole new section of the machine must be purchased at big expense. This adjustable feature of each face plate permits the use of special fancy designs instead of one or more of the plain faces.

## THE DIVISION PLATES.

The Division Plates (Letter "F" Illus. No. 12) are made of the same highly polished tool steel of which the face plates are made. They are absolutely rigid. A man with a crowbar would have a hard time bending one the least bit out of position. They are perfectly square and true. Each face plate slides into place without the slightest friction or annoyance

to the operator, yet it is a close fit. The brick are true to the square and have sharp, hard edges.

## EXTRA STRONG BEARINGS.

In Illustration No. 12 again, notice letters "A," "B" and "C." "A" is the shoulder on which rests one end of the face plates. "B" shows the cams operated by the foot lever "D," which support the center of the face plate and assist in releasing. "C" is an additional head on which rests the other end of each face plate. Thus we find that the face plates which receive nearly all the strain of heavy tamping are well supported. Better supported than on any other machine.

## FACING.

The common cement brick, while smoother and more uniform than the best common clay brick, being all of exact size and true to the square, can be made so in appearance as to equal the very finest pressed brick. This effect is obtained by facing. The usual mixture of coarser ingredients is used for the back, and a mixture of one part cement and one part fine sand is used as a facing. This facing, about one-eighth inch thick, is sifted into the mold, so as to evenly distribute it over the entire bottom (see Illus. No. 5). It is mixed fairly moist, so as not to stick to the face plates, and will soon take up sufficient water from the wetter backing used. This backing may be so wet that a little water may be tamped to the surface.

Houma, La., March 4, 1907:

Miracle Pressed Stone Co.,  
Minneapolis, Minn.

The brick machines I ordered of you are all right. I have tried them all, and am well satisfied with them. They are doing what we expected of them. I'd advise any man that can, to go into the business.

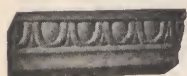
Yours truly,

ERNEST CHAUVIN,

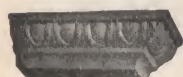
Houma, La.

## SPECIAL FACES.

Almost any design of brick is possible on a Miracle Machine. The illustrations show many different designs. The additional fancy face plates or fillers necessary for producing these brick make up a very strong feature of this machine. The face plates and necessary fillers are priced at \$1.00 each. The end plates at 50 cents each. Order by number.



No. 9 Face.



No. 9X End.



No. 2 Face.



No. 2X End.



No. 1.



No. 3.



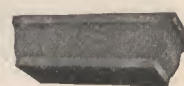
No. 4.



No. 5.



No. 6.



No. 8X End.



No. 10 Face.



No. 10 End.



No. 8 Face.



# Miracle Special Brick Machine

\$25.00 F. O. B. MINNEAPOLIS.

SHIPPING WEIGHT 100 lbs.

The Miracle "Special" Cement Brick Machine is built on a very simple and clever design. It is constructed in the most economical manner possible for the benefit of the investor, yet it is made surprisingly strong and is fully capable of meeting every requirement. It will last a life time, for there is absolutely no complicated mechanism about it which will get out of repair or call for new parts.

The machine is based on a heavy iron casting 6 inches wide by 2 feet 10½ inches long by 2 inches deep, reinforced by two cross sections which also serve as supports to the face plates. This casting is firmly bolted to a heavy iron stand. The mold proper is of two heavy castings. The section away from the operator is firmly bolted to the base, and the near section is bolted to the face plate. The face plate for all four brick is one heavy ⅝-inch piece of metal, and this, together with the front part of the mold, is hinged to the base. The mold is locked by means of a square notch in the lower arm of the double bracket which catches on the lug projecting from the ends of the rear casting. This arm has a slight play in order to serve as the latch to lock the mold when closed and to unlock by raising about ¼ inch before the turning operation actually takes place.

The size of the brick produced is 2¼x4x8 inches.

The machine complete is equipped with hopper, mallet and sample pallet. It weighs 100 pounds ready for shipping.

## OPERATION.

Fill the machine and hopper level full and tamp well down into the molds by using the mallet as illustrated. If desired the mixture can be tamped first by using the handle of the shovel and the mallet afterward, although the first method is just as well if done thoroughly, and is much quicker.

The hopper is then removed by shoving away from the operator and scraping off with it the surplus material onto the table to be used again.

An ordinary wooden float is then used to smooth the back surface of the brick. The float is held with the front side slightly raised so that its front edge will scrape off all the surplus material with the first stroke. The surplus should be forced down into the mold as much as possible. This operation is a very simple one and very quickly done as it is not necessary to have a perfectly smooth surface on the back of the brick.

Slide a smooth wooden pallet (6x39x⅞ inches) into place under the arms and flat on the surface of the mold. The arms or brackets, on each end of the machine, serve both to hold the pallet and as automatic locks.

By pulling upwards toward the operator to turn or open the mold these catches automatically unlock, thus rendering the turning, one simple, quick operation. (See below.) It will be noticed that in turning, each brick is held in place by four out of six sides and that each brick lies flat on its broad side, which avoids all possible breakage by the quick action of the operator. The turning is continued until this section of the machine rests against the edge of the table or bench leaving the brick in a natural upright position. The operator will then naturally lower the pallet about one-eighth inch (the distance or amount of play allowed between the arms and the pallet). This lets the brick down away from the face plate before they are withdrawn.

The Brick are now ready for the curing, which is a very important, yet very simple part of their manufacture. Brick should be sprinkled lightly as soon as they will stand the water without washing, in from four to twenty-four hours, according to the weather, and should be kept constantly damp for eight to ten days. Under no circumstances should this product be allowed to dry during the first three or four days.

By following these instructions a thoroughly good high class brick is assured. Two men can easily prepare their own material, make at least 1,000 brick per day, and take good care of all the brick made in the preceding ten days.

## COLORED BRICK.

Colored brick are often required, and they are easily and economically produced. They may be colored throughout or the face only, and very good results obtained. They greatly increase the profits. See Miracle Colors on page —.

## FACING CEMENT BRICK.

Often a manufacturer of cement brick has an opportunity of making four to six dollars per thousand extra for brick with an extra smooth and fine surface. The usual mixture is used for back, and a mixture of one part cement and one part fine sand for the face. This should be about ⅛ inch thick sifted into the mold to evenly distribute it over the entire bottom. The result is brick that are equally as good in appearance and quality as the very finest pressed brick.



Tamping the Brick.



Removing Brick from the mold.



# MIRACLE SIDEWALK TILE MACHINES

CEMENT TILE WALKS THE BEST.

MIRACLE Cement Tile Walks are now being used in preference to any other kind in a great many places for several reasons. It is contended by some that where the temperature is subject to extreme changes, the Tile walk is superior, inasmuch as it will heave in blocks and is not liable to crack. Then again, the Tiles can be made in winter when labor is cheap. Another great advantage conceded by all in laying a walk of MIRACLE TILE, is that it is not necessary to stop traffic. A soft or surfaced-in-place walk must be enclosed for several days to cure, while a MIRACLE Tile Walk is ready for use as soon as laid.

A Large Field.  
A Good Machine.  
Easily Operated.  
Costs But Little.  
Earns Large Profits.

Price Only \$35.00

F. O. B. Minneapolis.

## THE MIRACLE MACHINE.

The stand is strong and well made, all bearing parts planed. A square Mold, planed perfectly smooth and square inside, is attached to the iron stand, which is fitted with a foot lever for raising the tile after finishing, as you will note by illustration. The different sizes—12, 14, 16, 18, 20 and 24 inches square or hexagon—are made on the same Machine, it being necessary only to change the Mold, which operation can be accomplished in a very few minutes.

The stand is strong and well made, all bearing parts planed to fit accurately, while the mechanism is so simple that there is absolutely nothing to get out of order or wear out.

The Molds can be used separately, if desired, by making a wooden stand or table, but considering the low cost of the machine, its durability and its adjustability to all sizes of Molds, it is much cheaper and more satisfactory than a home-made affair.

The Molds are cast in one piece, are heavy enough to be perfectly rigid, and, being planed perfectly true and smooth inside, insure a tile perfect in every respect. By having a different Mold for each sized tile, a perfection is obtained which cannot be accomplished by machines using fillers of wood or other material to reduce the size of a large Mold to size required.



Lifting Off the Finished Block.

## CAPACITY.

In the City of Minneapolis alone there are over forty plans in operation making tile for sidewalk. The popular sizes in this city are 18, 20 and 24 inches square. The following are considered an average day's run of the different sizes for one tile maker and one helper or mixer:

80	24x24-inch Tile.....	320 square feet.
100	20x20-inch Tile.....	278 square feet.
120	18x18-inch Tile.....	270 square feet.

Using the mixture as indicated by these specifications, MIRACLE Tile will cost to manufacture and store in the yard, ready for delivery, from four to five cents per square foot.

## SPECIFICATIONS.

Tile should be made fully two inches in thickness, the base or body of the tile  $1\frac{1}{2}$  inches in thickness, should be composed of one part of Portland cement to four parts of clean, sharp sand and gravel, first mixed thoroughly dry and then wet, so that when tamping, the moisture will appear at the top. The top coat, or wearing surface, should be one-half inch in thickness and consist of one part of best Portland cement and two parts of clean, sharp, screened sand. The tile should be thoroughly tamped and should be allowed to cure on the pallets for forty-eight hours, then placed in the drying yard, and should be allowed to cure at least thirty days before placing in the walk.



# EXCELLENT OPPORTUNITIES IN THIS FIELD.



24-inch Mold.

## LAYING.

After the ground has been leveled off and tamped to an even surface three to four inches below the proposed finished walk, place a layer of mortar thereon two inches in thickness, composed of three parts of clean, sharp sand to one part of Hydraulic or Natural Cement, mixed quite dry, or, if it is so desired, Portland Cement may be substituted for the Natural Cement; a mixture of one part Portland Cement to eight parts of sand, will be plenty strong for the base. Strike this mortar off level and lay the blocks, carefully, seeing that they are all even and the surface brought to a true grade, which should slope one-fourth inch per foot from the property line toward the street. After the blocks have been laid, dust the walk with pure cement and sprinkle. Sweep this liquid cement so produced in between the blocks. This cements the blocks together and makes it impossible for them to get out of position.

## EXTRA MOLDS.

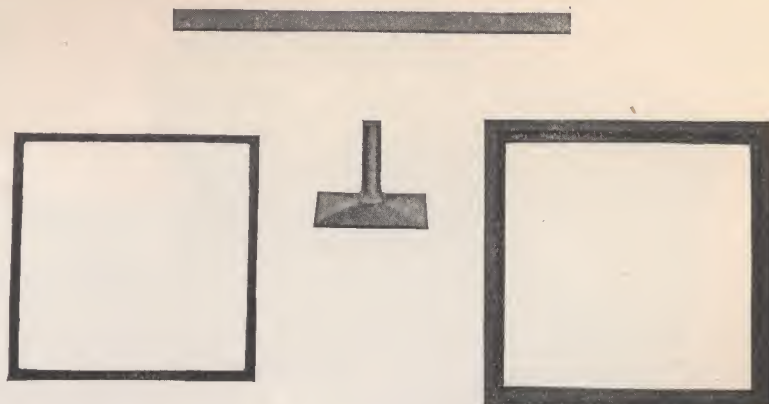
We make Molds from 6 to 24-inch sizes. However, it is not necessary to have all of them. We find the popular sizes are 20-inch and 24-inch, as with the 20-inch tile, laid three wide, you can make a five-foot walk, and with the 24-inch you can make a walk any width in even feet.

Hexagon Molds of sizes 6 to 24 inches, may also be had and attached to the Miracle Machine.

## PRICE LIST.

Price of Molds include sample pallet, steel screed, top dressing frame, and filling frame.

Sidewalk Machine Complete (except Mold)	190 lbs..	\$28.00
6-inch square Mold	38 lbs..	8.00
8-inch square Mold	45 lbs..	9.00
9-inch square Mold	48 lbs..	9.50
10-inch square Mold	50 lbs..	10.00
12-inch square Mold	54 lbs..	10.50
14-inch square Mold	60 lbs..	11.00
16-inch square Mold	66 lbs..	11.00
18-inch square Mold	70 lbs..	12.00
20-inch square Mold	80 lbs..	13.00
24-inch square Mold	98 lbs..	16.00
6-inch hexagon Mold	38 lbs..	12.00
8-inch hexagon Mold	45 lbs..	13.00
9-inch hexagon Mold	48 lbs..	13.50
10-inch hexagon Mold	50 lbs..	14.50
12-inch hexagon Mold	54 lbs..	15.50
14-inch hexagon Mold	60 lbs..	17.00
16-inch hexagon Mold	66 lbs..	17.00
18-inch hexagon Mold	70 lbs..	17.50
20-inch hexagon Mold	80 lbs..	19.00
24-inch hexagon Mold	98 lbs..	24.00



Machine Complete for One Size Tile.

## OPERATION.

The MIRACLE Machine is very easily operated. Put the pallet in bottom, fill level with top of Mold with coarse concrete, then put the top dressing frame in place and fill with top dressing on top, tamp thoroughly and level off with screed, and then trowel the tile to whatever finish you desire, then press foot lever, which will raise the finished Block, ready to carry away.

## NOTICE.

In ordering sidewalk machine, specify to us the size of tile you wish to make and select your molds from the table in opposite column. For instance, if you wish to make 20x20-in. square tile and 24x24-in. hexagon tile, you would require the following:

One Machine	\$28.00
1 Tamper, 6x6	1.25
1 20-inch square Mold, including sample pallet, steel screed, top dressing frame and filling frame	13.00
1 24-inch hexagon Mold, including sample pallet, steel screed, top dressing frame and filling frame	24.00

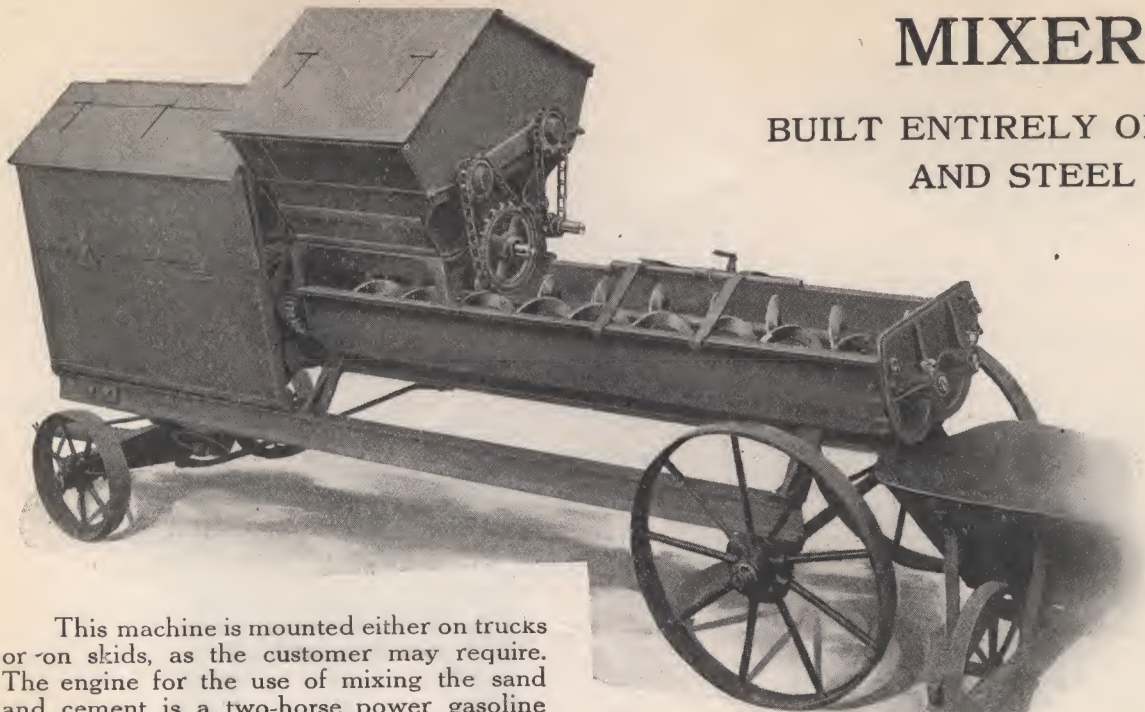
Total.....\$66.25

With this outfit, you have a complete machine for the manufacture of 20-inch and 24-inch sidewalk tile, which will make tile for walks 5 feet, or any even feet in width.



# MIRACLE POSITIVE FEED CONTINUOUS MIXER

BUILT ENTIRELY OF IRON  
AND STEEL



This machine is mounted either on trucks or on skids, as the customer may require. The engine for the use of mixing the sand and cement is a two-horse power gasoline engine, but when the rock hopper is used, we furnish a three-horse power which really gives an excess of power under ordinary conditions.

When the mixer is mounted on trucks, it includes the following equipment:—A two or three-horse power engine, friction clutch and the positive feed apparatus for cement and sand; and, where it is specified, we also furnish a rock hopper for crushed stone, gravel or other coarse aggregate. The front wheels are 18 inches diameter, and the rear wheels are 30 inches diameter, with 3 inch facing; of cast iron with wrought iron spokes. This insures a solid, substantial wheel that can be used on any ground without any danger of breaking thru, and with the least possible tractive effort. The bolsters are solid cast iron of the very best quality and the frame is made up of 4 inch I-beams. The only piece of wood about the mixer is the wagon tongue; this is straight grained oak. The mixing trough is made of cast iron of good quality and cast in one piece. This insures solidity and stability. The trough is 7 feet long, 17 inches wide and 10 inches deep, which gives ample room for the material being mixed.

Our ribbon spirals are what do the business. They are not a set of paddles that work erratically thru the material but are especially designed ribbon spiral mixers that pass the material over, thru, under, backwards, forwards and sideways, until it is combined in a uniform, homogenous mass. These spirals are 9 inches in diameter and 7 feet long and are made of the very best steel with strength sufficient to withstand any work that they may be called upon to do. They are mounted on a solid steel shaft 2½ inches in diameter.

There are two of these ribbon spiral mixers side by side in the mixing trough, and they are so placed that they intersect one another, one right hand and one left hand, throwing the material toward the center, which is the essential element of a continuous mixing mechanism.

The cement and sand are dumped thru a single opening at the forward end of the hopper and feed continuously and positively by our screw feed, which exhaustive tests and actual practice have proven to be the most accurate and positive method of feeding cement

and aggregates into a mixing trough. It insures a continuous flow of concrete materials properly proportioned. There is no pushing or pulling or dumping. It goes in continuously making the machine a continuous feed as well as a continuous mixer. This mixer will mix a given quantity of sand, cement and coloring material thoroly by the time it has traveled a distance of 2½ feet.

When used, the stone hopper is placed directly back of the cement and sand hoppers. After the sand and cement are thoroly dry-mixed, water is applied and the stone is fed into this mixture, and the whole is thoroly unified before it is discharged from the mixing trough.

The mixing trough is mounted so as to give 25 inches clearance under the dumping end. This gives ample room to run a wheelbarrow under, thus insuring rapid handling of the product from the machine. The retainer on the end prevents loss of material while wheelbarrows are being changed.

Our mixing device is so arranged that it is only necessary for the operator to keep the hoppers full of material. The machine will do the rest. In the hoppers two devices are used to make absolutely sure of the continuous flow of the desired proportions of the material to the mixing trough: First, before the feed conveyors reach the dump opening they pass under a hood, thus insuring that only the material in the screw is discharged. Second, over each conveyor shaft is mounted a second shaft, on which is a set of paddles. These paddles agitate the material in the hopper and press it down into the feed conveyor, thus insuring that the conveyors will be evenly full at all times. The feed mechanism can be started or stopped independent of the mixing device in the trough below.

When the mixer is mounted on trucks, and an engine is used, we furnish a friction clutch, which insures perfect safety to the engine. Should there be any clogging of the machine or large rocks should stop the machine, the friction clutch will release, thus taking the

MAY BE HAD  
EITHER  
ON WHEELS  
OR ON SKIDS  
AND  
WITH  
OR  
WITHOUT  
POWER



# MIRACLE POSITIVE FEED.

## CONTINUOUS MIXER.

ASK FOR PRICES

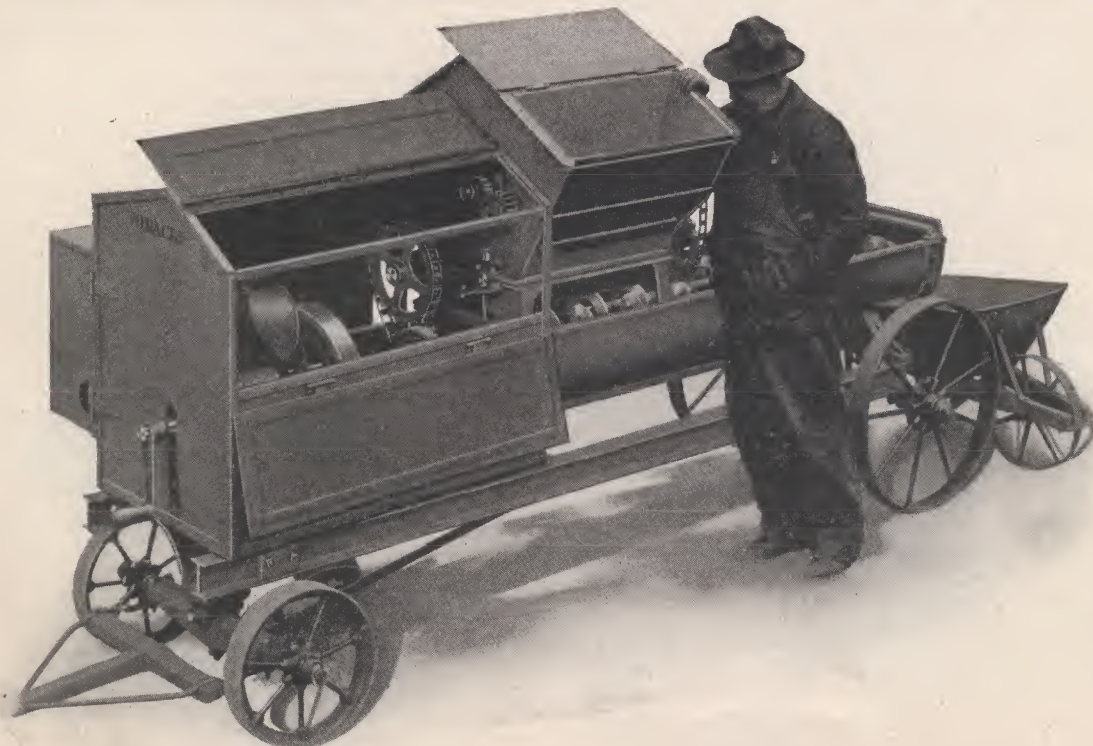


strain off the engine. We use separate clutch for stopping and starting the feed mechanism, hence by simply changing the sprocket wheels, as shown in the table which we furnish, we can get any mixture that is desired. All that is necessary to get a proportionate mix is to regulate or proportion the revolutions of the conveyors in the different hoppers. This is done by placing sprocket wheels on the end of the conveyor shafts and connecting them with a chain. This is the only device we know of that makes an absolutely even mixture at all times, regardless of the conditions of the material.

The spraying pipe is placed over the mixer trough between the cement and the stone hoppers and can be connected to any tank or hydrant by the use of a hose and two stopcocks. The chains, sprockets and gears are properly housed, as is also the engine, to protect them from the sand and the elements.

The capacity of this machine is 60 to 150 yards of perfectly mixed concrete per day of 10 hours.

Ask for Prices.





# MIRACLE HAND-POWER MIXER

## THE SUMMIT OF PERFECTION.

(EXHIBIT M.)

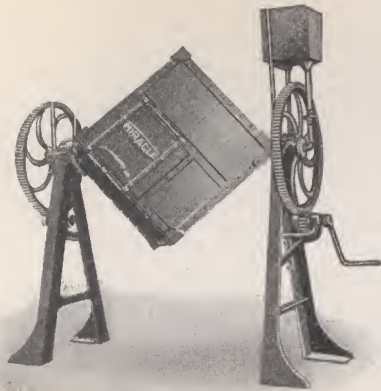


Fig. 1.

Miracle Mixer, \$110.00 F. O. B. Minneapolis.

### MIRACLE HAND-POWER MIXER.

#### Why We Perfected the Miracle Hand-Power Mixer.

Within the past few years several power mixers have been put upon the market. Many principles and forms have been embodied in these machines, most of them being adaptations from the old clay mixing machinery used for years. Many have been unable to get away from the paddle scheme, and have various forms of paddles, such as blades, or paddles on a revolving shaft, either alternately niched so as to stir the material, or all inclined so as to work the material all toward and out at one end. The former are known as batch mixers, while the latter are called continuous mixers. Another form has the paddles, or blades, attached to the inside of a cylindrical shaped body, this body revolving instead of the paddles.

While the paddle mixer is all right for mixing dough in a bake shop or for mixing clay and plastic materials, the principle is wrong when applied to concrete. First, it requires an enormous outlay of power to do the required work. Second, the machine must necessarily be built very heavy to stand the strains imposed by the power applied. Third, a heavy substantial machine as described must necessarily represent a large outlay of capital, and where no power is already available, an engine

count of the fact that there is more profit in the larger sizes with engine or motor attached.

Taking these facts into consideration, and wishing to supply our customers with a concrete mixer cheaper and better than any heretofore offered for sale, and one adapted to small plants not employing power, has led to the production of the Miracle

Hardwick, Vt., April 30, 1908.

Miracle Pressed Stone Company,  
Minneapolis, Minn.

Gentlemen:—Confirming telegram would like to have you send us immediately a Cement Mixer same as you shipped to us at Bethel, Vt. We hope you can make immediate delivery, as we need one right away.

Yours truly,

WOODBURY GRANITE CO.,

Geo. H. Bickford, Mgr.

Dictated by G. H. B.

Cube Hand-Power Mixer. The cube, hung by opposite corners, is the most thorough mixer that has yet been devised, because the materials are shifted from side to side three complete times, as well as turned over three complete times, for every revolution of the box, or six distinct displacements of the material. The simplicity, and at the same time, the thoroughness of the operation may be nicely illustrated by taking a small cubical pasteboard box and revolving it slowly when suspended by the corners, and noticing the different movements that the material must go through when inside this box. Try it, and be convinced. This mixer requires no previous distribution of materials—just dump the sand in and dump a sack of cement on top, and commence turning.

We are proud to say that this mixer, designed for hand power, has never caused us the least trouble in any way, and of the large number sold, we have never had a single complaint.

This is not all, however. The Miracle Mixer was not put on the market merely to sell, but it serves another more important purpose. It is a protection to the various Miracle molds already placed, by making a better product, thereby adding prestige to the already celebrated Miracle products.

The following results of government tests made at Duluth a few years ago show the efficiency of machine mixing as compared to hand mixing:

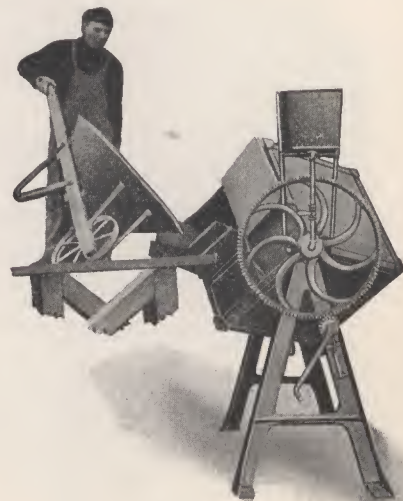


Fig. 2.

A Practical Method of Charging from a Side Platform.

Dubuque, Iowa.

Miracle Pressed Stone Co., Minneapolis, Minn.

GENTLEMEN:—We purchased one of your Hand Power Cube Mixers last fall and after a week's test of this one, purchased another. From the work done by these two hand mixers, we wish to recommend them as thoroughly efficient hand mixers, producing a thorough and uniform mixture and on work where only a relatively small amount of concrete is needed, a great saving over hand labor, both in time and cost. We believe your mixer to be the best hand mixer on the market to-day and everyone handling concrete should own one.

Very truly yours,

M. TSCHIRGI & SONS,  
By. C. S. T.

must be provided to run it. Fourth, a machine built like this, wasting much power by having useless, heavy-running parts, cannot be operated successfully by hand. In fact, very few of the manufacturers of mixers try to adapt their mixers to hand power, as they don't want a hand-power machine on the market that is successful and can be sold at a moderate price, on ac-



## Miracle Hand-Power Mixer—Continued.

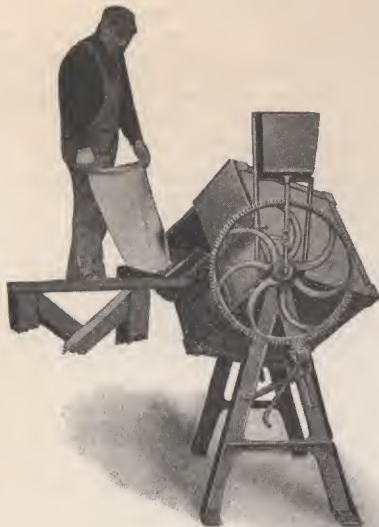


Fig. 3.

A platform like this is easily built and never in the way.

At seven days, the hand-mixed concrete showed only 53 per cent. of the strength of the machine-mixed concrete; at 28 days, 77 per cent.; at six months, 84 per cent.; and at one year, 87 per cent. This has never been disputed, and the wise contractor, in fact, we think every contractor, will sooner or later realize it and use a machine mixer.

### CONSTRUCTION.

Price, \$110.00. Weight, 700 lbs.

Height of "A" Frame, 4 feet, 3 inches.

Briefly described, the Miracle consists of a thirty-inch cube, hung by means of suitable castings from opposite corners, and supported by two "A" frame standards. The bearings, or journal castings, each project far enough through the boxes to receive a large gear, which in turn engages a small pinion, which is turned by means of a crank, rigidly fastened on the same shaft. The shaft containing crank and pinion is securely fastened to the frame of the machine by means of a bracket. Thus the mixer is provided with two cranks with a leverage of 62-3 inches, which makes it very easy for two men to turn for an ordinary batch of five cubic feet. One man can operate very nicely by reducing the size of batch slightly.

The mixer is provided with a lock, which engages the teeth of the large gear. This lock is simple, and will hold the mixer securely in any position desired.

The box, or body, is made of number 10 steel plate, the corners being re-inforced by means of angle iron. A large door opens at one of the corners to receive and discharge material.

Park Rapids, Minn., Dec. 26, 1906.

Miracle Pressed Stone Co., Minneapolis, Minn.

GENTLEMEN:—In regard to the Miracle Mixer I bought of you last fall, I would say that it more than meets my expectations. We have run it with hand power so far but expect to run it with some other power next season. Uniformity of work and its simplicity will commend it to the most skeptical.

G. H. RICE, Park Rapids, Minn.

It is further provided with a yoke made of gas pipe. This yoke supports a tank which supplies water for wetting the mixture. A perforated pipe runs from this tank through the axis of the mixer, the water being turned in by means of a stop cock when desired. This perforated pipe, which does not come in contact with the

material, is the only thing inside of the box, as the sides are perfectly smooth.

This mixer can also be supplied with floor hangers, tight and loose pulleys, countershaft, etc., for power equipment, if so desired. The extra cost for these attachments is \$15.00.

Hawley, Penn.

Miracle Pressed Stone Co., Minneapolis, Minn.

GENTLEMEN:—The Hand Power Cube Concrete Mixer recently received from you is O. K. Cost us with Express charges about \$140.00.

On a building 45 x 100, 288 yards concrete, we saved half the \$140.00 in labor, and consider the machine paid for itself on the above job, on account of the MIX being so much better than we could do with hoe and shovel.

Please mail us your 1907 catalogue and price list.

Yours truly,

ESTATE OF JOSEPH ATKINSON,  
Per H. J. Atkinson.

### OPERATION.

Although the illustrations show methods of filling the machine by elevating the material, it is most practical under ordinary conditions to fill from the level. The height is not above an average man's waist, and a sack of cement or a bucket of sand is easily lifted and dumped. It is sometimes quicker and more economical, however, to elevate the materials, either by wheeling up a runway or by other means, as may be convenient. Hence, the illustrations. The sand may be dumped in from the top, through the hopper, if sufficient head room is available, or a runway may be built at one side about four feet from the ground, and a chute hinged to this runway so as to be turned back out of the way when mixer is turning. (Figs. 2 and 3.)

This latter method is the better where materials have to be elevated by hand. The cement is now thrown on top of the sand and the door closed. The mixer, of course, is locked in position while being filled, and must be unlocked before trying to turn.

### TURNING.

Turn the mixer at a moderate gait, so that it would make eight or ten revolutions per minute. Five or six revolutions, dry, thoroughly mix the materials, as each revolution turns the materials over three times. This means fifteen to eighteen turnings while dry. Water is then let in without stopping the mixer, and after five or six more revolutions the mixture will be found to be perfect in every way. The tank can be previously filled

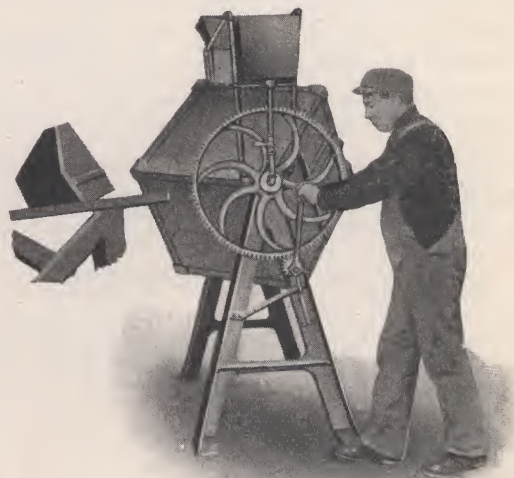


Fig. 4.

The turning is simple and easily accomplished.



with just enough water to wet the batch, this amount having been determined by experiment. So it will be seen that the degree of moisture can always be kept uniform.

Compare the above method with hand mixing, three times dry and three times wet, and notice the lack of uniformity in the hand mixture. Compare the time of mixing and wetting the machine batch, about one and one-half minutes, with the time it would require to do it by hand.

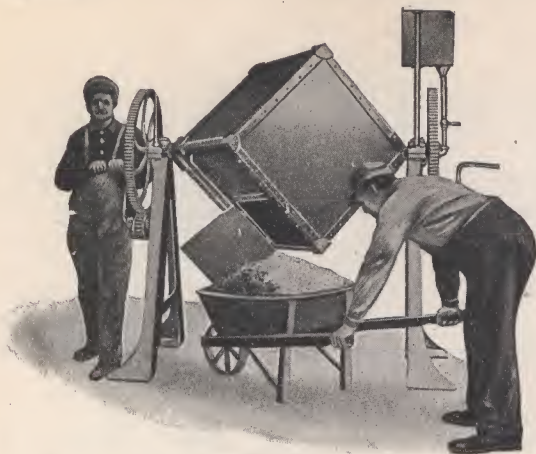


Fig. 5

Showing two men Operating. Catching the Discharge.

#### DISCHARGING.

When the requisite number of turns have been made, the door is opened, allowing the contents to run out, when this side reaches its lowest point. The concrete may be caught in a wheelbarrow run under for that purpose, or, if being used in a machine adjacent to the mixer, may be dumped on the floor and shoveled up as desired. The mixer stands high enough from the floor that a common mortar barrow can be run under it.

#### CLEANING THE MIXER.

With paddle mixers and others this is an important feature of operation. In making the semi-dry mixtures, as for blocks, bricks, etc., THE MIRACLE NEEDS NO CLEANSING—it keeps itself clean; while for sloppy mixtures a few gallons of water turned around a few times wash it out effectually. The smooth sides of the Miracle cannot catch and hold any material.

#### CAPACITY.

The thirty-inch cube will hold, if packed full, about  $15\frac{1}{2}$  cubic feet of material. It does its best work when about one-third full, or with about four cubic feet of sand to one sack of cement, this being about the usual batch.

This mixer will easily keep three crews going with Miracle Block Machines, mixing material for about 450 12-inch blocks or 600 9-inch blocks, in ten hours.

The Miracle Mixer was designed, first to produce a better concrete at a less cost, and second, to save money for its user. It does both in a most highly satisfactory manner. It secures a much better product by producing a thoroughly and uniformly mixed concrete and saves money in the greatly reduced cost of the labor of mixing. Labor is the great item of expense and every time you cut it down or make it more efficient you are adding that much clear profit to yourself.

We want you to try our Mixer. Remember our guarantee. If you want to correspond with some one who is now using this machine, we will gladly give you references.

## MIRACLE X-L-ALL MIXER

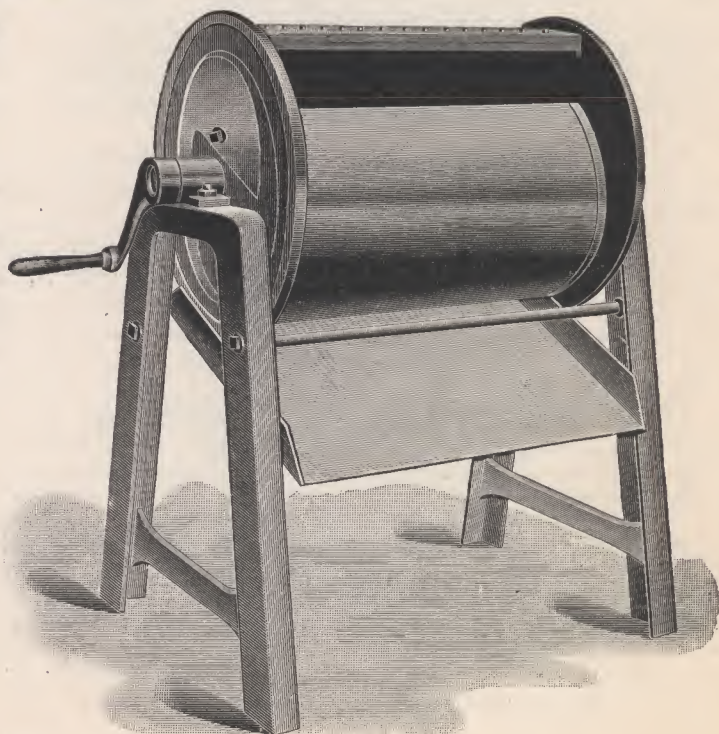
(Patent Applied For)

THE MACHINE FOR THE OPERATOR  
WHOSE WORK ONLY JUSTIFIES A  
VERY SMALL INVESTMENT.

This machine, which is made in the following sizes, will save money and afford better concrete, even if only a few hundred cubic feet of concrete are to be used in a small building and a solid piece of concrete work, such as a foundation, or a small piece of private sidewalk. It mixes perfectly and rapidly. It is durable, and will still be worth the price paid when you are through with it.

#### SIZE, CAPACITY AND PRICE LIST.

No.	Size of Cylinder	Gauge of Steel	Capacity per batch	Cu. Yds. Per Hr.	Turns of Crank	Shipping Weight	List Price
1	24x32	14	1 Cu. Ft.	$1-1\frac{1}{2}$	12	350	\$31.50
2	32x32	14	2 Cu. Ft.	$2-2\frac{1}{2}$	12	425	45.00
3	32x42	12	3 Cu. Ft.	3-4	36	600	58.50





# MIRACLE (Round) RE-INFORCED CONCRETE FENCE POST MACHINE

HAND POWER EQUIPMENT. 150 POSTS PER DAY.



It is needless to attempt to show that the demand for concrete posts for fencing, vineyards and other uses would be practically without limit if the people were fully convinced that concrete is better and cheaper than wood. The only question, then, is to show how good is the Miracle (Round) Reinforced Post, and how cheaply it can be made, in comparison with wood.

The cost of wood fencing varies in every locality, but, as sand and labor are nearly everywhere the same, and the price of the only other constituents—Portland cement and reinforcing metal—are also practically the same, comparison can readily be made upon the data furnished in the following:

Considering that a wood post must be replaced, on an average, every five or six years, and that a concrete post gets stronger and better for many years, and will last always, it is a matter of only a few years until the truth and importance of these facts will have made use of the concrete fence post all but universal.

Concrete fence posts are beginning to find their way into use. There are several kinds. Like all new products, there will be a period of competition between the various makers over the merits of the various shapes, styles and reinforcements, after which the weak and faulty makes will be driven out of the market and the best post will come into general use.

Some concrete posts are made in troughs, tamped and turned out about like cement blocks, using various forms of reinforcing—usually a few bars of iron near the center from end to end. Miracle experiments made with this character of post warned us not to attempt to sell molds based upon this idea.

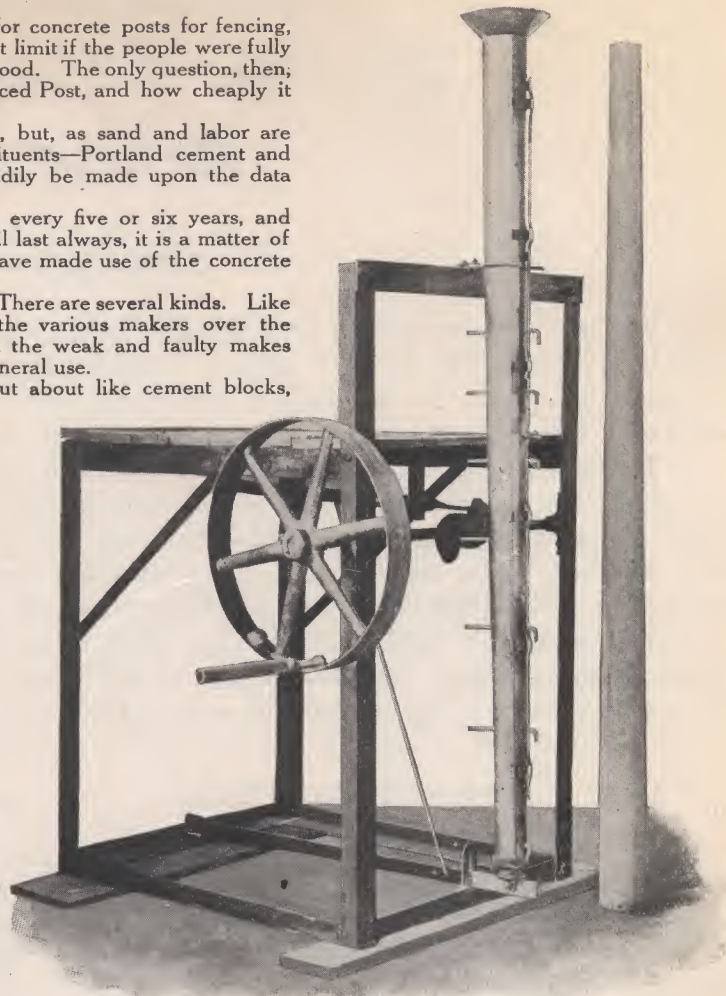
Two important qualities are absolutely essential in the making of a reliable post from concrete: (1) The reinforcing metal must be in the form of a cylinder, so as to equally reinforce all sides of the post and give maximum strength. (2) The cement must be poured wet and packed solid by a jolting process that insures absolute uniformity in crystallization and the expulsion of all air spaces in the post, as well as a close pack against the reinforcing metal throughout.

These are not possible with any post made by the ordinary tamping process, or by the use of the various styles of trough molds which are being offered.

Again, our experiments have demonstrated that the round post can be made solid most readily, and will stay solid in the ground when a square post or one with flat sides will work loose. Any man who has had practical experience with fence building knows that wood fence posts are always round, never square, in the ground. This is the reason: experience shows, that post the most rigid.

Still another fact: Posts with flat sides or corners are objected to by stock raisers because the animals scratch off the hair and disfigure themselves when they rub against the sharp corners, while with the round posts no such objection is heard. This is really much more of an objection to square cornered posts than may at first seem probable.

At the University of Wisconsin an investigation has been conducted touching this point. Square concrete posts were used at first quite extensively, but these were all removed for the reasons given in the foregoing, and round concrete posts made with this machine were substituted.



Hand Power Machine

## EXPLANATION OF THE MACHINE

The concrete is mixed very wet by an ordinary mixer or by hand on a one to three proportion and is wheeled by inclined planes to the platform and put into the mold (shown in place) by a hopper (see the top). The mold is raised and dropped vertically 120 times a minute by turning the wheel, packing the mixture very solid. The reinforcement is placed in the mold before the concrete is poured, and is completely imbedded. The posts remain in the molds 12 to 16 hours, according to weather, and cure in 30 days, ready for use.

## WHAT THEY COST

A standard size post, 7 feet long, 5 inches at the base and tapering to 3½ inches at the top, requires approximately three-fifths cubic foot of concrete. With sand at \$1.00 a yard and cement at \$1.65 per barrel, labor at \$2.00 a day, counting 45 posts to the cubic yard of concrete, the cost per post is as follows:

Concrete for 1 post.....	\$0.08
Reinforcement.....	.04½
Labor.....	.03
Total .....	\$0.15½

## RE-INFORCING MATERIAL

After going into the post business thoroughly, by experimenting, we find that the best results are obtained by using a woven wire fencing for reinforcement, which the owner of the machine can buy right in his own town on an average of about 40c a rod. A rod of fencing 48 inches high will make reinforcement for about 9 posts. Thus we have a cost of about 4½c for reinforcement. With a pair of nipper pliers any man can shape the cylindrical reinforcement.

We quote prices as follows on fence post equipment:

Hand Power Fence Post Machine (all iron), without casings.....	\$75.00
Line Post Casings (galvanized).....	2.00 each
Corner Post Casings (galvanized).....	2.50 each
Hitching Post Casings (galvanized).....	2.50 each
Iron Casting to Fasten to the Top of Hitching Post.....	1.50

Prices f. o. b. Minneapolis.



# M I R A C L E   C O L O R S

## The Best to Use and the Way to Use Them.

### MIRACLE COLORS.

We have experimented for months endeavoring to put before our customers a line of concrete and water colors which they could fully depend upon. Colored concrete is destined to take a very important part in concrete construction, and we have been exceptionally careful on that account. We believe we have a line which will always take the lead, and which all contractors and users will heartily endorse and guarantee.

The coloring material which the manufacturers of concrete products must use, in order to be sure of the best results, and in order to be sure of the same permanent color as originally intended, are those which are natural pigments. By this we mean the ingredients must be natural colors taken from the earth, and not chemical compounds. The best coloring matter must also be free from gypsum and other sulphates which cause efflorescence. We guarantee the Miracle Colors to answer all of the above requirements.

Remember, that the cost of coloring matter for concrete is of secondary importance. A building once erected is beyond repair. Poor and cheap coloring is sure to fade. Good Miracle Concrete and Mortar Colors cost but little more, if any, and you are sure of good results.

### HOW TO USE MIRACLE COLORS.

Begin by experimenting. No one can tell you exactly how much color to use for a certain shade. It depends largely upon the quality of sand and cement and the proportions used. The most important item, and yet one which is more likely to be slighted than any other, is the mixing. Mix the coloring with the cement dry, and mix it thoroughly. Be sure that all lumps are eliminated. If you cannot crush them all out with a hoe, run through a screen, but be sure that the mixture is thoroughly even. If the lumps are not all taken out, you will not develop the full strength of your color and will also have a spotted product. The sand and water may then be added, giving special care to the thoroughness of the mixing and using the same proportions exactly, as you learn by experimenting will produce the desired shade.

### OUR EXPERIMENT.

In order that our customers may know approximately how much color is necessary to produce a desired shade, we have carefully carried on a series of experiments which may be relied upon only as a basis for your own experiments and as a guide in purchasing.

We have carried on these experiments mostly by making cement brick, because the demand for colored brick is larger than that for any other form of cement products; yet colored cement blocks are practical and a very pleasing effect can be obtained at a very small expense by coloring the face of the block only. It might be mentioned here that several of our customers have lately had much success in placing a colored face on the Miracle Block. We shall be glad to furnish the neces-

sary division plates and instructions to those who wish to do the same.

The result of our experiments is embodied in the table given herewith. The quantity of color mentioned as necessary for 1,000 brick, is only an estimate for you. As above stated, you must learn for yourself the results from using your own sand and cement. The figures are based on a mixture of 4 to 1; standard size brick  $8\frac{3}{8} \times 4\frac{1}{8} \times 2\frac{3}{8}$  inches and colored solid. The amount necessary to color the face of the brick will be about one-tenth of the amount for a solid brick, provided the same proportions are used; but usually a richer mixture for facing is used: (often 2 to 1), consequently to produce the same shade, the amount of color may vary.

### COST.

In noting the prices quoted in the table please observe the approximate cost of color for a thousand brick, and not the cost per pound. This pointer will be of value to you in making comparison with other quotations. A color may be cheap per pound but high per thousand brick, on account of the large quantity required.

The quotations given in the table are net F. O. B. Minneapolis in barrel lots. The No. 4 Red is the only color we can sell in less than barrel lots, and the price on this color in small quantities will be three cents more per pound than the barrel price as quoted. Prices on large quantities and carload lots furnished upon request.

We can furnish you with almost any desired shade, but it will take about thirty days to make shipment on any but stock colors listed herein.

(See Next Page for Approximate Cost of Colored Brick.)



## MIRACLE COLORS—Continued.

### Prices and Approximate Cost of Coloring Cement Brick.

DESCRIPTION.	Approximate Amount per 1000 Brick (solid).	Price per pound f. o. b. Minneapolis.	Pounds to barrel (Approx.)	Approximate cost of color—1000 brick (solid).	Approximate cost of color—1000 brick (face only).
No. 1 Black—A natural mineral black, permanent, but not jet black. Suitable also for black mortar color.	50 lbs.	2c	300	\$1.00	\$ .10
No. 2 Black—A very strong, permanent and jet black.	5 lbs.	15c	30	.75	.08
No. 1 Buff—A light shade of yellow, permanent. It is difficult to get a delicate buff from a brown base. Can be used for mortar color.	150 lbs.	1½c	300	2.25	.25
No. 2 Buff—A stronger and darker shade than No. 1 Buff.	80 lbs.	3c	300	2.40	.24
No. 1 Red—A dark red shaded toward the brown—permanent, but not a very desirable shade. Sold in competition with cheaper goods. Can also be used as a mortar color.	100 lbs.	1½c	400	1.15	.15
No. 2 Red—Similar to No. 1 Red, but lighter in color, shading off to a yellow.	90 lbs.	1½c	400	1.35	.14
No. 3 Red—Produces a very handsome deep crimson, very strong and absolutely permanent. We recommend this color in preference to all others.	50 lbs.	3¼c	500	1.62	.17
No. 4 Red—A pure bright red oxide, not as dark as No. 3 Red. If the color is thoroughly rubbed out, it is the cheapest red to use. Preferred by many, as the less quantity of color, the better the brick.	10 lbs.	9c	700	.90	.09
(Sold in less than barrel lots at 12 cents per pound.)					
No. 1 Brown—A permanent dark reddish brown; can also be used as a mortar color.	80 lbs.	1½c	400	1.20	.12
No. 2 Brown—This is stronger than above and shades off toward the yellow.	60 lbs.	2¼c	300	1.35	.14

### To Color Any Cement Product.

To determine the approximate amount of coloring necessary in coloring blocks or brick of a different size than above referred to, or in coloring cement used for any purpose, the following table will serve as a valuable guide and basis for experiments. (Mixture 4 to 1.)

No. 1 Black . . . . .	.543 lbs. to 1000 Cubic Inches	No. 2 Red . . . . .	.977 lbs. to 1000 Cubic Inches
No. 2 Black . . . . .	.054 " " " " "	No. 3 Red . . . . .	.543 " " " " "
No. 1 Buff . . . . .	1.629 " " " " "	No. 4 Red . . . . .	.108 " " " " "
No. 2 Buff . . . . .	.868 " " " " "	No. 1 Brown . . . . .	.868 " " " " "
No. 1 Red . . . . .	1.086 " " " " "	No. 2 Brown . . . . .	.651 " " " " "

It must always be remembered, however, that these proportions are not guaranteed to produce the same shade of color under different conditions. The nature of the sand and cement as well as the amount of water used, determine largely the color produced. But by using these proportions as a basis, and a little experimenting, one can easily secure the shade desired, and be sure of maintaining that shade as long as the same sand and cement is used and mixed thoroughly in the same proportions.

### How To Order.

Determine the color wanted and order by number, stating the number of barrels desired. Remember that we cannot ship in less than barrel lots any color except No. 4 Red. In less than barrel lots No. 4 Red sells for three cents more per pound than the barrel price.



# CONCRETE WATERPROOFING.

It is conceded by all who have made a careful study of the concrete block industry that in order to satisfy the public and users of concrete blocks, it is essential to overcome, as far as possible, the dampness and subsequent efflorescence, which appears on the outside of a wall following heavy rains.

Many attempts in this direction have been made, some with a greater degree of success than others. We have found the greatest success accomplished by the use of a compound which is mixed with the cement. Although in using such a compound extreme care must be taken that whatever material is used to waterproof must itself readily mix with water, so that when it is mixed with cement it will not prevent the addition of enough water to make sure that a thorough crystallization takes place. In other words, a waterproofing compound, in order to do the work, must have certain properties, which are only developed when brought into contact with the constituents of the concrete. When these are mixed together and sufficient water is added, it is then that the waterproofing property becomes active.

R. O. U. is just such a waterproofing compound as described. We are on safe ground when we say that it is the only material which fully answers all the necessary conditions and fulfills all the essential requirements of a perfect waterproofing compound. For it is the only waterproofing material that will last permanently. R. O. U. will not melt when subjected to heat, no matter how strong. This can be proved by a very simple test. Take a piece of tin, place on one end some of our R. O. U., on the other end a sample of some other compound, which comes in the nature of a powder. Place lighted candles underneath and watch the results. You will find that R. O. U. is not in the least affected by the heat, but invariably the other material will resolve itself into molten mass. You can draw your own conclusions as to its composition.

R. O. U. will hold its resistancy to water and dampness as long as the concrete remains intact. Therefore a practical concrete worker will not be deceived into believing that, because certain compounds which are called waterproofing happen to show a resistance to water, they will have that property when mixed with cement or incorporated as a part of the concrete. It is true, they may, being of a waxy nature, serve for a short time. They may fill the pores and so for awhile prevent the entrance of water, but this cannot last. Under the influence of time or heat they will become diffused, lose their power, leaving the concrete in the same absorbent condition as before they were added to it.

It is the lasting qualities of R. O. U. that we wish to emphasize, that is, it is something that the sun's rays cannot affect, neither can changing temperatures. Moreover, it is crystallized throughout the mass and so thoroughly incorporated with the concrete that all power of absorbing water on the part of the concrete is forever destroyed.

## COST OF R. O. U.

If used as a waterproof facing for concrete blocks, a barrel of Portland cement waterproofing with R. O. U., mixed with a proportion of three parts of sand, will yield one-half inch coating for 280 square feet, and at 12c a pound for R. O. U. this would make 30c per hundred square feet, or about one-fourth of a cent per block. If the waterproofing is carried throughout the block, the cost would be about one and one-half cent per block.

R. O. U. is also used to good advantage in plastering reservoirs, finishing floors, water tanks, etc., and the cost of a 2-inch cement mortar on a one to three mixture would be \$1.22 per hundred square feet. For three-fourth inch coating the same composition, the cost would be about 45c per hundred square feet. To secure a perfect bond, 2-inch should be used on floors, and on vertical surfaces the thickness should be at least three-fourth inch.

R. O. U. is put up in paper sacks, placed inside of canvas bags, 50 pounds to the sack, and sells at 12c per pound, f. o. b. point of shipment. All deliveries west of Chicago will be made from Minneapolis and deliveries east of Chicago from our eastern warehouse, so as to minimize freight rates.

It is due you, who are trying to make and market the very best product that can be made, to order at least a 50 pound sack of our R. O. U. and give it a trial,—making up a sample with and without the compound, and after making comparative tests, I think without question you will obtain far larger prices for your product containing this material than that made without it.

We are prepared to quote special prices on ton lots and over. We carry a complete stock on hand at all times in Minneapolis and can give your orders very prompt attention.



## R. O. U. Water Proofing

Will Overcome Your Old Enemy  
Moisture and Efflorescence  
**FOR CONCRETE  
CONSTRUCTION.**

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Not Only for Waterproofing Concrete  
Blocks, but Equally Good for  
**CELLARS, CISTERNS  
TANKS, FLOORS, Etc**

---

R. O. U. Compound—In sacks of 50 lbs. per lb. 12c., discount on ton lots.  
A 50 lb. Sack will waterproof concrete made from 12½ bbls. of cement.

**R. O. U. Mold Wash**

In 1-gallon cans...per gal., \$1.40    5-gallon cans.....per gal., \$1.35  
Barrel lots.....per gal., \$1.30

## R. O. U. MOLD WASH.

It is an acknowledged fact by those who have taken occasion to study the proposition carefully, that 90 per cent of the people manufacturing concrete blocks or concrete products of a similar nature are using their material too dry. Now the absence of a sufficient quantity of water always makes concrete porous and more susceptible to absorption, as well as of less strength than when made real wet. In order to facilitate the use of a more moist concrete,—in fact, of a concrete so wet that it will barely retain its shape when taken from the mold and at the same time not stick to the face plates, we have just placed on the market a mold wash known as R. O. U. Mold Wash, and which we are prepared to recommend and guarantee. This mold wash will not stain or discolor concrete, but will at the same time permit the use of a very wet mixture without producing a sticky or dauby appearance in the resulting products.

In the manufacture of ornamental products, such as porch columns, lawn vases, newels and the like, it is especially desirable to use a very wet mixture; in fact, a material so wet that it can be poured will produce the best results and right here is where the R. O. U. Mold Wash comes into play to the best advantage.

The R. O. U. Mold Wash comes in one-gallon and five-gallon cans, priced as follows:

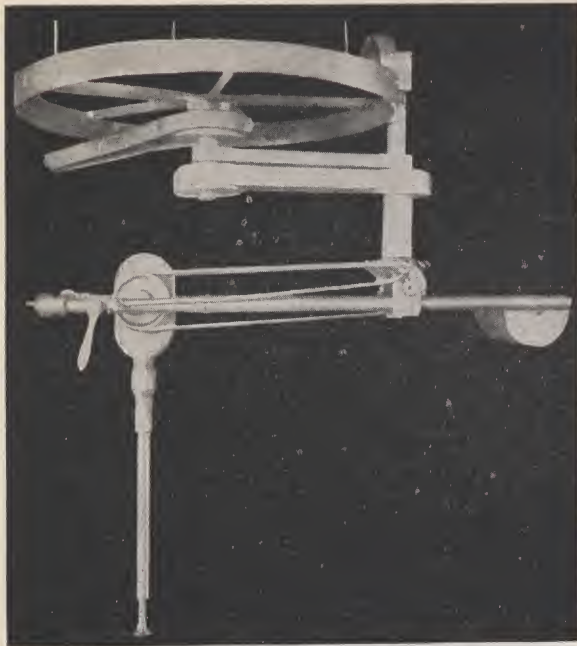
In one-gallon cans, \$1.40 per gallon f. o. b. Minneapolis.  
In five-gallon cans, \$1.35 per gallon f. o. b. Minneapolis.



# MIRACLE MAGIC TAMPER.

NOT ALONE FOR ONE TYPE OF MACHINE BUT FOR ALL MACHINES.

PRICE ONLY \$150.00.



**The Greatest Time and Labor Saving Device in Concrete Manufacturing ever Placed on the Market.**

It requires no floor space as it is suspended from the ceiling. Any number of moulds can be placed within the radius of this tamper. This machine is balanced by a counter weight so it is handled with ease. It requires but one horsepower to operate, and strikes 580 blows per minute.

It insures uniform tamping from morning to night and every day in the year.

The standard frame is 12 ft. long, plunger 5 ft. long with  $1\frac{1}{2}$  inch stroke, weighs 200 lbs. without counter weight.

All wearing parts are made of Open Hearth or Crucible steel, case hardened, making it absolutely rigid and substantial.

For making Cement Tile it is furnished with a long foot to reach down into the mold.

**Price \$150.00**

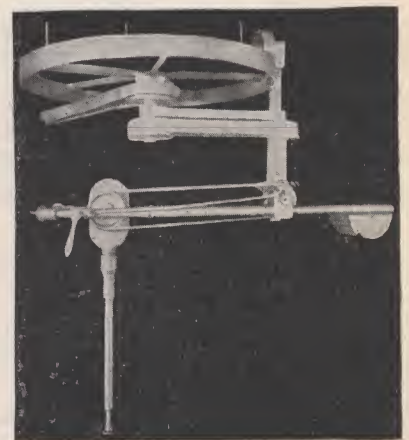
F. O. B. Factory.

In the manufacture of all kinds of concrete products anything which will cut down the labor cost is worthy of consideration.

Hand tamping is slow, uncertain and expensive. Pneumatic devices require a big outlay of money for accessories, such as air compressor, storage tank and other fixtures.

Practically all other tampers are made for specific uses and can only be used with the one machine for which they are designed. The Miracle Magic Tamper not only eliminates these big items of expense, but is adapted to use on any machine for any purpose. It can be used for tamping Blocks, Brick, Tile, Sewer Pipe, Ornamental products, Sidewalk Tile, or in fact any place where concrete is tamped into a mold or machine of any kind.

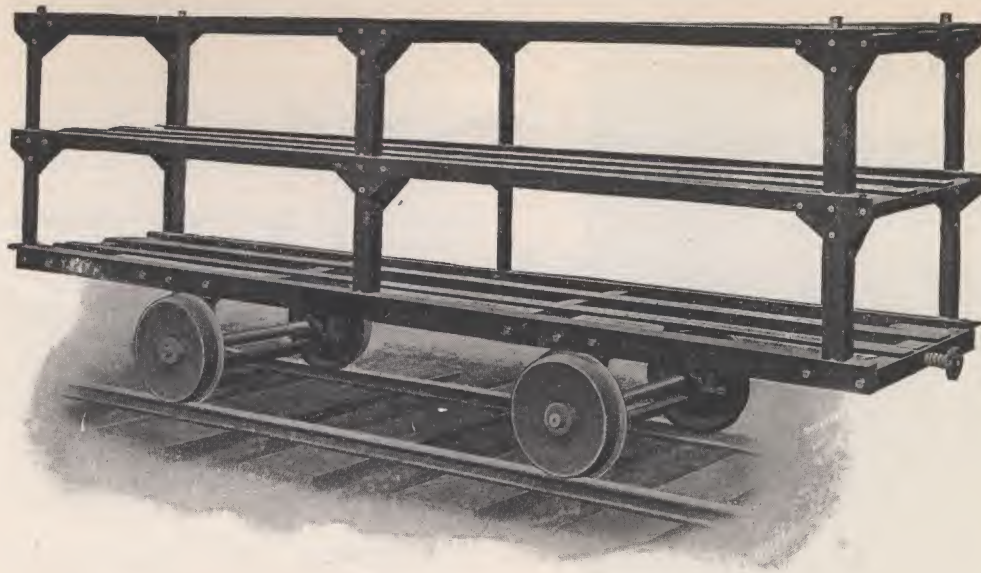
It requires no floor space as it is suspended from the



**Saves Time and Labor  
You Can't Afford to  
Be Without It.**



# MIRACLE SPECIAL CONCRETE BLOCK CAR



Shipping weight—3-Deck Car, without center slats, 400 lbs.

To properly attain the highest point of perfection in the manufacture of Concrete Blocks it is necessary, first, not only to use good material and make a Block with care, but employ up-to-date processes in labor and quality-saving machinery. Consistent with the MIRACLE idea of being first and best in everything, we have had designed a special triple deck Block Car, which will carry 18 12-inch or 24 9-inch MIRACLE Blocks at one load, thus saving much expense in labor, with great reduction in number of defaced and broken blocks.

This illustration is an excellent reproduction of this new Block Car, constructed throughout of metal, properly proportioned and designed to meet the requirements of heavy service. We call especial attention to the arrangement of the decks, both the intermediate and upper decks being made with depending legs and resting one upon the other. They are readily removable, and by this means loading can be more quickly and easily accomplished. The decks are well braced in all directions, and are held in position by the small projections fitted into the corners of the angles forming the deck standards.

In ordinary cases we do not furnish the two center deck slats, as they are unnecessary except where blocks of short length are manufactured, so if center plates are desired so state in your order.

The method of using spring journal boxes, as shown, will appeal at once to the practical block manufacturer. It will be noticed that the bearing consists of a resilient coil spring fitted into a pedestal in connection with our improved roller bearing journal box.

The use of springs prevents breakage to the Block by reason of roughness or inequalities in the track, and roller bearings greatly reduce the power required to operate the car.

All parts are made interchangeable and the bearings require no attention outside of an occasional oiling.

This car is also provided with a spring bumper at each end as an additional protection against jar from sudden shocks.

## STANDARD DIMENSIONS OF CAR.

Length over bumpers, 7 feet  $7\frac{1}{2}$  inches; width over all,  $24\frac{1}{2}$  inches; distance between standards, 38 inches; extreme height, 40 inches; track gauge, 24 inches; distance between decks, 11 inches; capacity, 24 9-inch Blocks.

The above dimensions can be varied to suit the requirements of the customers.

## PRICE \$19.00, F. O. B. FACTORY.

Complete with upper and intermediate deck, with center slats, as shown above.

Car alone, without removable decks or center slats, \$11.50.

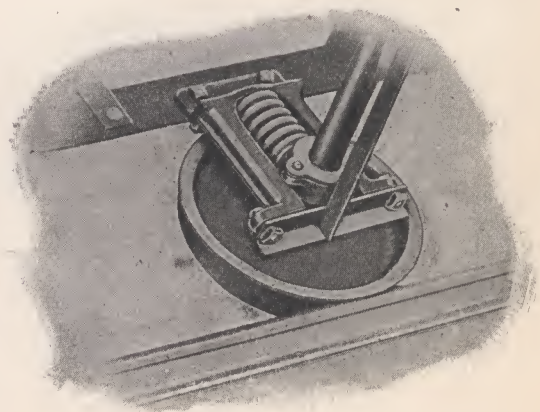
Wheels, axles, journal boxes and springs, (for home made plat form) \$9.00.

Special discounts in lots of 5 or more. Single 12-lb. track per linear foot, 12 cts.; angle iron ties, 24 gauge,  $2 \times 1\frac{1}{2} \times 3-16$ , 35 cts. each.

Separate decks for cars without slats, \$3.00 each.

Intermediate slats, 55 cts. each.

Write for full information and prices on turntables, transfer cars, switches, etc.



Detail of Spring Journal Box.



# MIRACLE TOOLS AND APPLIANCES

THE STANDARD KIND. THE VERY BEST.



A MIRACLE CREW USING MIRACLE TOOLS.

We can absolutely recommend the tools in the following pages as being the most practical and economical. They are made by us after years of experience, and they will fill the requirements of any cement user.

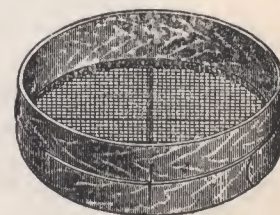


SAND SCREEN.



LACED SAND SCREENS.

Frame, 66x24 inches. Wire surface, 40x18 inches. Nos. 3, 4, 5 and 6 mesh.  
Price, \$2.50.



SAND RIDDLES.

Diameter, 18 inches.  
Iron wire, Nos. 3, 4, 5, 6, 7, 8, 9, 10, 12 and 14 mesh.  
Price, . . . . 35c each.  
Price, 14 mesh, 40c each.

## Sand Screens and Riddles.

We can furnish you with any size or shape screen in any mesh you desire. These screens are all put up in first-class shape.

We present prices of a screen built upon honor, and while the first cost may be more, we have found they are the cheapest in the long run. These screens are all made of No. 12 wire rods and strengthened on all four sides with No. 6 wire rods, and are similar in construction to ordinary coal screens of coarse mesh. They are all hand made and practically indestructible.

No. 1 Screen.—Made of No. 12 wire, $\frac{3}{8}$ inch sq. mesh	
30x60 inches.....	22c sq. foot
No. 2 Screen.—Made of No. 12 wire, $\frac{1}{4}$ inch sq. mesh,	
30x60 inches.....	12c sq. foot
No. 3 Screen.—Made of No. 12 wire, 1 inch sq. mesh,	
30x60 inches.....	10c sq. foot
No. 4 Screen.—Made of No. 12 wire, $1\frac{1}{2}$ inch sq. mesh,	
30x60 inches.....	10c sq. foot
No. 5 Screen.—Made of No. 12 wire, $\frac{1}{2}$ inch sq. mesh,	
30x60 inches.....	20c sq. foot
No. 6 Screen.—Made of No. 18 wire, $\frac{1}{4}$ inch sq. mesh,	
30x60 inches.....	15c sq. foot

All of above without frames. Oak frame, \$3.00 extra Net.

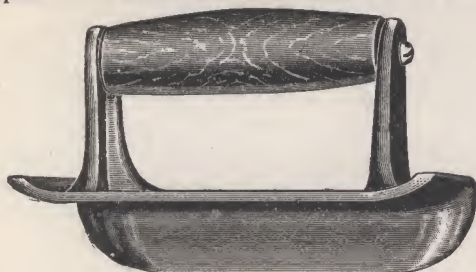


# MIRACLE CEMENT SIDEWALK TOOLS

WE ARE HEADQUARTERS FOR EVERY KIND OF TOOL THAT IS MADE FOR CEMENT CONSTRUCTION. EVERY TOOL HAS STOOD THE TEST OF MIRACLE EXPERIENCE.

In selecting a line of cement workers' tools to recommend to our trade, it has not been a question of the cheapest but the best. The average finisher has no time to clean or care for a jointer or edger every time he uses it. With a steel tool, if it is not cleaned promptly, rust is bound to appear, which makes ragged and imperfect work.

The MIRACLE Ideal Tools are very carefully and conscientiously made, being practical in every respect. They are made of a composition of bell metal and bronze, which makes it impossible for them to rust and they are always ready for use.



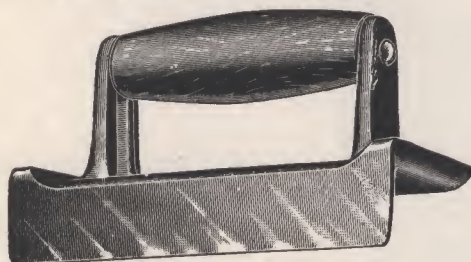
3/4-INCH EDGER.

This tool for finishing the edges is 3 inches wide by 6 inches long, both ends rounded. It has a 1-inch turned edge with a radius of 3/4-inch. Weight, 1 1/4 pounds.

No. X4, Iron, nickel plated, each.....\$ .48  
No. X04, Solid Bronze, each..... 1.00

3/4-INCH EDGER, 10 INCHES LONG.

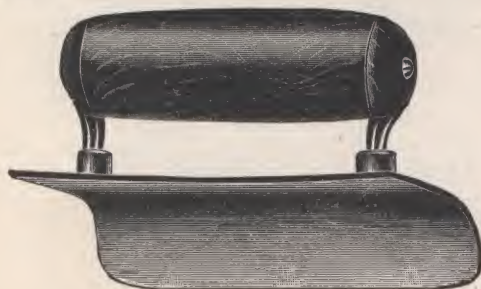
No. XA4, Iron, nickel plated, each.....\$1.07  
No. XA04, Solid Bronze, each..... 1.75



SQUARE EDGER.

This tool is used for finishing the edge of steps, etc., making the edge square. It is 6 inches long by 3 inches wide with cutting edge of 1 1/2 inches. Weight, 1 1/4 pounds.

No. X17, Iron, nickel plated, each.....\$ .60  
No. X017, Solid Bronze, each..... 1.00



CURBING EDGER.

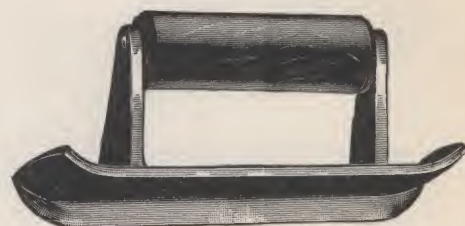
This tool for finishing curbing is 3 1/2 inches wide by 6 1/2 inches long with a slightly oval surface. It has a 2-inch turned edge with a radius of 1 1/2 inches. Weight, 2 1/2 pounds.

No. X100, Iron, nickel plated, each.....\$ .85  
No. X0100, Solid Bronze, each..... 1.27

CURBING EDGER, 10 INCHES LONG.

A X100, Iron, nickel plated, each.....\$1.20  
A X0100, Solid Bronze, each..... 1.98

THE  
LOWEST  
PRICES  
EVER  
MADE.



3/8-INCH EDGER.

This tool is used for finishing the edges. It is 2 3/4 inches wide by 6 inches long with both edges rounded, has a 3/4-inch turned edge with a radius of 3/8 inch. Weight, 1 1/4 pounds.

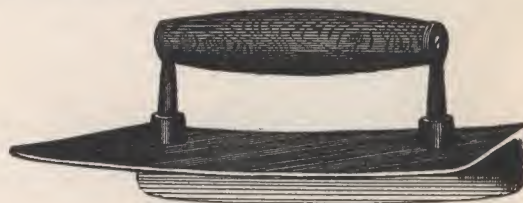
No. X2, Iron, nickel plated, each.....\$ .42  
No. X02, Solid Bronze, each..... .89

3/8-INCH EDGER, 10 INCHES LONG.

No. XA24, Iron, nickel plated, each.....\$1.07  
No. XA02, Solid Bronze, each..... 1.77

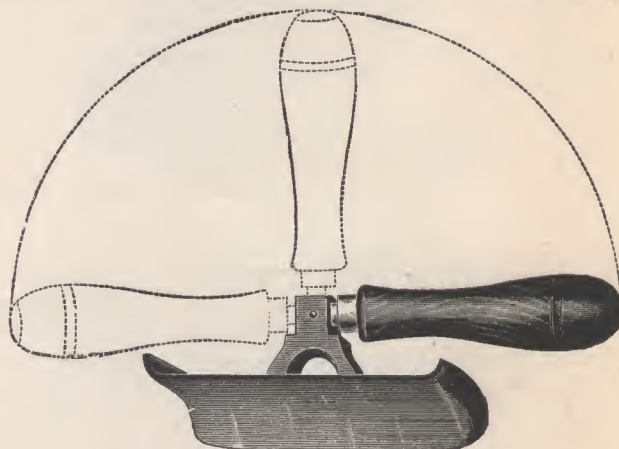
1 3/4-INCH EDGER, 8 INCHES LONG.

No. X38, Iron, nickel plated, each.....\$ .65  
No. X038, Solid Bronze, each..... 1.30



No. 18, Edger, \$1.75.

For finishing the edges of circular walks, 2 1/2 x 7 1/2 inches.



REVERSIBLE HANDLE EDGER.

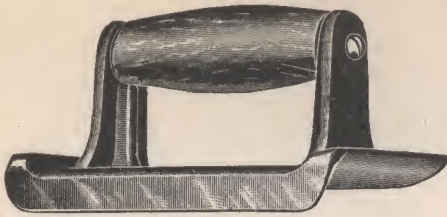
This tool is very handy, our reversible handle making it either right or left handed. It is 2 1/2 inches wide by 5 1/2 inches long, flat surface with both ends rounded. Turned edge with 3/8-inch radius. Weight 1 1/2 pounds.

No. X10, Bronze only, each.....\$ .89



## Miracle Cement Sidewalk Tools—Continued

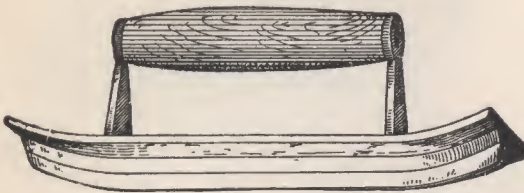
### BEVEL EDGER.



This tool is used for finishing the edge of steps, carriage blocks, etc., finishing the edge in shape of small bevel. It is 6 inches long by  $2\frac{3}{4}$  inches wide. Weight,  $1\frac{1}{4}$  pounds.

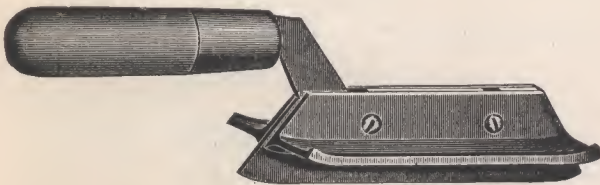
No. x18, Iron, nickel plated, each.....\$ .48  
No. x018, Solid Bronze, each..... 1.00

### JOINTERS.



No. 17, Jointer, \$1.40.

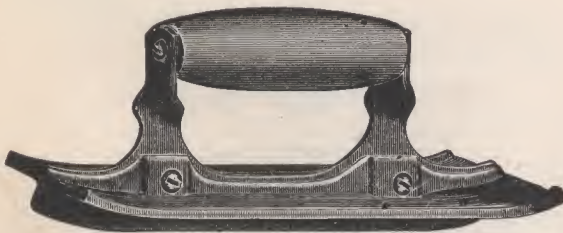
This Jointer cuts deep in the pavement; is easily used, and trowels the bevel of the points strong and firm. The joints when finished are very wide and deep, allowing gravel, broken stone and pebbles that may accumulate in the joint to lodge below the surface of the pavement.



Used for Jointing Walks or Driveways.

No. 11, Jointer, \$1.40.

This Jointer has an adjustable blade and is used for yard or lawn walks. It cuts the finish and completes the joint at the same time, making a very small and neat joint.



No. 12, Jointer, \$2.10.

For making a deep and clean joint, cutting the finish and completing the joint. Adjustable steel blade.

No. 13, Jointer, \$2.50.

Adjustable steel blade, one inch deep.

No. 14, Jointer, \$3.00.

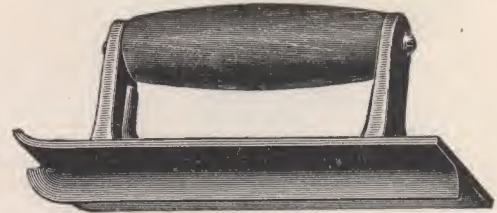
Adjustable steel blade, one and one-half inches deep.



No. x41 Jointer, nickel plated .....\$ .60

No. x041 Jointer, Bronze..... 1.10

Length 8 in., width  $1\frac{3}{4}$  in., depth of cut  $\frac{1}{2}$  in.



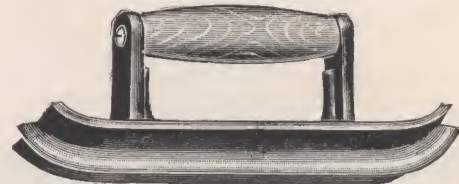
No. x5, Straight End Jointer.

This tool is very desirable where joint is to be made in a sharp corner against framework, as one end is straight and one end is rounded. It is 3 inches wide by 6 inches long.

No. x5, Iron, nickel plated, each.....\$ .54

No. x05, Solid Bronze, each..... 1.00

Weight,  $1\frac{1}{2}$  lbs.



No. x1, Jointer.

This Jointer is  $2\frac{3}{4}$  inches wide by 6 inches long with both ends rounded, cuts  $\frac{1}{2}$  inch deep.

Weight,  $1\frac{1}{4}$  lbs.

No. x1, Iron, nickel plated, each.....\$ .42

No. x01, Solid Bronze, each..... .89



Rolling Jointer.

Solid Bronze.....\$1.50 each

Special tool used by masons and sidewalk men.

It is 2 inches wide by 2 inches in diameter.

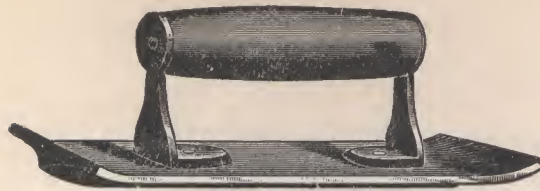
Packed  $\frac{1}{2}$  dozen in carton. Weight, per dozen, 14 lbs.

Order by name.



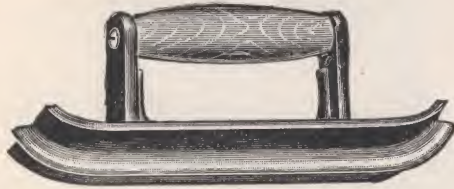
# Miracle Cement Sidewalk Tools—Continued.

## DRIVEWAY GROOVERS.



No. 16.—\$1.40.

Used for making grooves across driveway.



Driveway Groover.

For making grooves in driveways, etc. It is 3 inches wide by 9 inches long with both ends rounded.

Tool Cutting  $\frac{1}{2}$ -inch Deep.

No. x3, Iron, nickel plated, each.....\$ .85

No. x03, Solid Bronze, each..... 1.26

Weight,  $1\frac{3}{4}$  lbs.

Tool Cutting  $\frac{3}{4}$ -inch Deep.

No. x19, Iron, nickel plated, each..... .85

No. x019, Solid Bronze, each..... 1.26

Weight, 2 lbs.

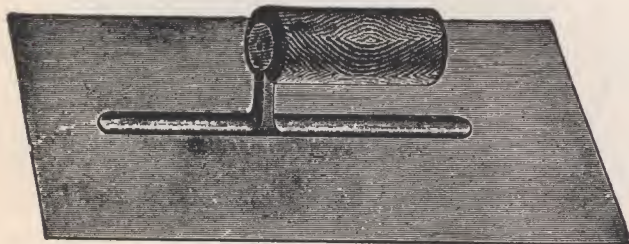
Tool Making Wider Groove Than No. x3.

No. x7, Iron, nickel plated, each..... .85

No. x07, Solid Bronze, each..... 1.26

Weight, 2 lbs.

## TROWELS.



Plastering Trowels.—Cincinnatti pattern, extra quality cast steel, improved basswood handle, fancy etched blade.

Inches .....	$10\frac{1}{2}$	11	$11\frac{1}{2}$
Price .....	\$1.15	\$1.20	\$1.40

Woodrough and McParlan Plastering Trowels.—Our special No. E, cast steel, etched blade, walnut handle, extra heavy.

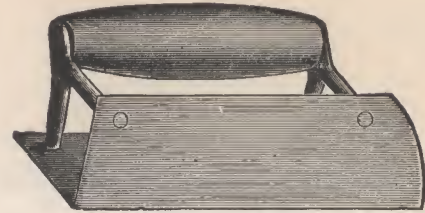
Inches .....	$10\frac{1}{2}$	11	$11\frac{1}{2}$
Price .....	\$1.25	\$1.35	\$1.50



Oak Leaf Pointing Trowels.—Square heel pattern, solid shank, cast steel.

Inches .....	$4\frac{1}{2}$	5
Price .....	\$0.25	\$0.30

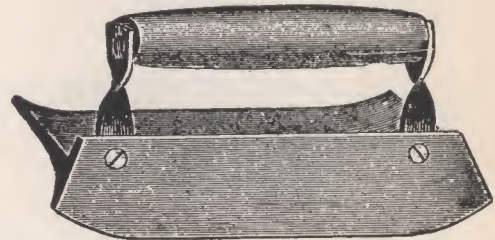
## ANGLE TROWEL.



No. 15.—\$1.10.

For finishing internal angles of steps, etc. An article indispensable to a cement worker.

## QUARTER ROUNDS.



No. 6.—\$1.40.

For rounding and finishing corners and edges of cement walks and curbs. Radius, one inch.

No. 7.—\$1.40.

Same design as No. 6. Radius, one-half inch.

No. 8.—\$1.75.

Same design as No. 6. Radius, two inches.

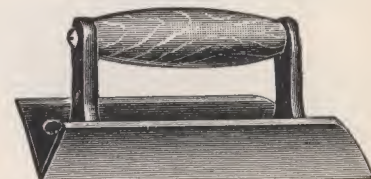
No. 9.—\$1.40.

Same design as No. 6. Radius, three-eighths of an inch. Used where a small round is required.

No. 10.—\$1.40.

Same design as No. 6. Radius, three-quarters of an inch.

## CORNER TOOL.



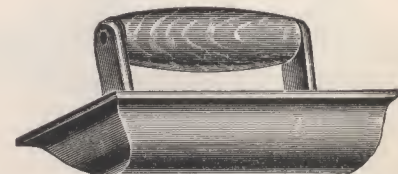
This tool is for finishing the corners of steps, etc. As the cut shows, has one end straight and one end curving back, as shown, allowing the user to work in corner against framework. It is 6 inches long with sides  $1\frac{1}{2}$  inches high.

Weight, 1 lb.

No. x6, Iron, nickel plated, each.....\$ .48

No. x06, Solid Bronze, each..... .90

## GUTTER TOOL.



For Making Gutter 1 Inch Deep by  $3\frac{1}{2}$  Inches Wide.

Weight,  $1\frac{1}{2}$  lbs.

No. x8, Iron, nickel plated, each.....\$ .85

No. x08, Bronze, polished, each..... 1.26

For Gutter  $1\frac{1}{2}$  Inches Deep by 5 Inches Wide.

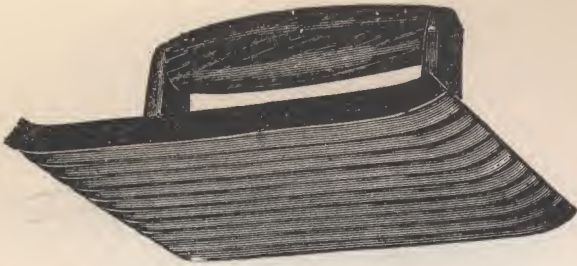
No. x9, Iron, nickel plated, each.....\$1.07

No. x09, Solid Bronze, each..... 1.77

Weight, 2 lbs.



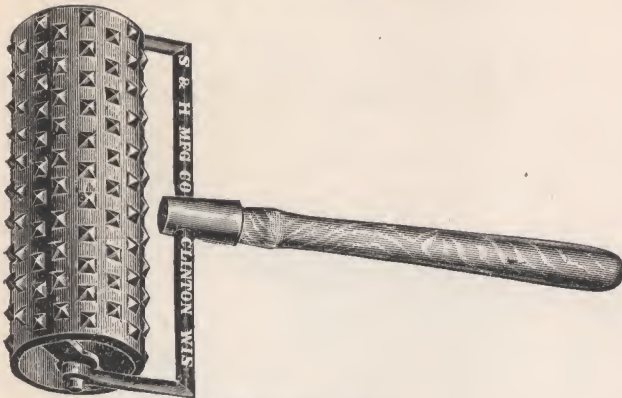
## Miracle Cement Sidewalk Tools—Continued.



### CORRUGATING TOOLS.

No. x44, nickel plated,  $4\frac{1}{2} \times 6$  in. .... \$1.20 each  
 No. x044, Solid Bronze,  $4\frac{1}{2} \times 6$  in. .... 2.00 "

Used for corrugating sidewalks and driveways.



Weight,  $9\frac{1}{2}$  lbs.

### INDENTATION ROLLER.

For imprinting surfaces of walks, etc., making a fine finish and preventing them from being slippery.

No. x015, Bronze, 10 inches long, each ..... \$8.40  
 No. x15, Nickel, 10 inch. .... 5.00

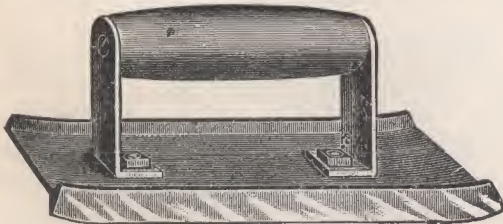


Weight,  $9\frac{1}{2}$  lbs.

### DRIVEWAY ROLLER.

For finishing driveways. Makes  $\frac{1}{4}$ -inch grooves 2 inches apart.

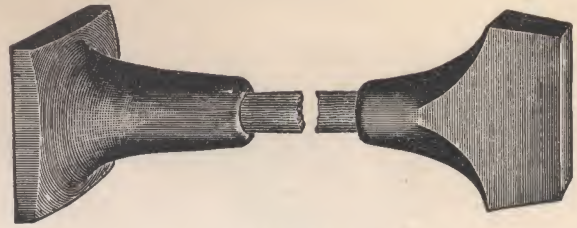
No. x016, Bronze, 10 inches long, each ..... \$7.00



### BEVEL TOOLS.

No. 19.—\$1.40.

Used to make small bevels on corners of steps or curbs.



### TAMPERS.

No. 2.

No. 1.

Each, \$1.50.

For steps, curbs, or where a small Tamper is required. Four-foot hickory handle. A combination tool with Tamper on either end. Weight,  $8\frac{1}{2}$  pounds.

No. 3.—\$1.00.

Same design as No. 4,  $4 \times 4$ , 4-foot hickory handle. These Tampers will be found to be the Ideal Tampers for cement sidewalks, concrete foundations, etc.



5 per cent. off  
 on all orders  
 for cash with  
 the order.

No. 4.—Price, each, \$1.25.

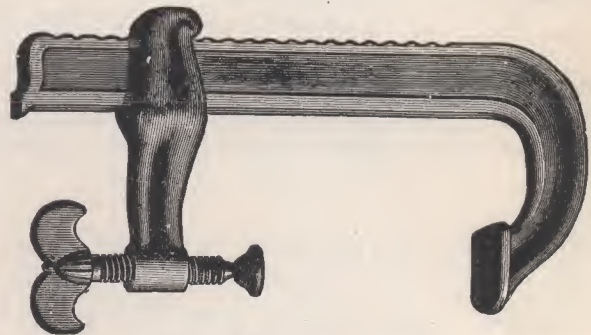
$6 \times 6$  inches. Four-foot hickory handle.

No. 5.—Price, each, \$1.50.

Design same as No. 4.  $8 \times 8$  inches—used for curbs, coping, etc., four-foot handle.

No. 6, Same as No. 5.— $10 \times 10$ , each, \$1.75.

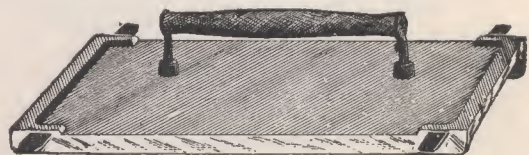
Any of the above sizes can be furnished with short iron handle for sidewalk block machine, if preferred. Price \$1.00 each; six for \$5.00.



### MIRACLE CURB CLAMPS.

Miracle curb clamps are of the simplest construction and operation. Will last forever.

Price, 12-inch size ..... \$1.10 each



### CURB TOOLS. No. 21.

For finishing top of street curb. The finest tool in use. Bronze; dimensions,  $4 \times 11\frac{1}{2}$  inches. .... Price, \$3.50  
 $3\frac{3}{4}$  in. by 11 inches. .... " 2.50  
 $5\frac{1}{2}$  " " " .... " 4.00  
 $7\frac{1}{2}$  " " " .... " 4.50



# MIRACLE TOOLS AND APPLIANCES

## The Standard Kind.



### MIRACLE TUCK POINTING TOOL.

It has been the experience of a large number of our customers that it is difficult to get a good tuck-pointing tool; in fact, at some places, it is impossible to get one at all. We show here a cut of the MIRACLE all-steel pointer, which is double-edged and the only practical tool for this work on the market. It is made entirely out of steel, thus insuring a tool that will last an indefinite period, and still retain its original edge. Can be furnished in either design of face shown in illustration, and in any gauge from  $\frac{1}{8}$  to  $\frac{5}{8}$ -inch.

Price, each.....\$1.00



### METAL WALL PLUG.

The question is often asked, "How do you nail to your casing base, etc.?" This question is easily answered by this illustration.

We have made arrangements with the manufacturers and can furnish promptly any number of these you may require.

Price.....\$1.75 per 100 F. O. B. Minneapolis  
".....\$15.00 per 1000 F. O. B. Factory.

### RADIUS TOOLS.

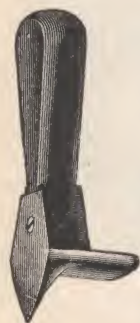
This tool is used for laying out and finishing curves and circles where longer edgers cannot be used. Weight  $\frac{1}{2}$  lb.

#### TOOL WITH $\frac{3}{8}$ -INCH RADIUS.

No. x23, Iron, nickel plated, each....\$ .42  
No. x023, Solid Bronze, each..... .70

#### TOOL WITH $\frac{3}{4}$ -INCH RADIUS.

No. x11, Iron, nickel plated, each..... .42  
No. x011, Solid Bronze, each..... .70



### RAISED POINTER. (Beading Trowel.)

This tool is used for making raised pointing or beading, and is so constructed that the bead will not cling to the tool.

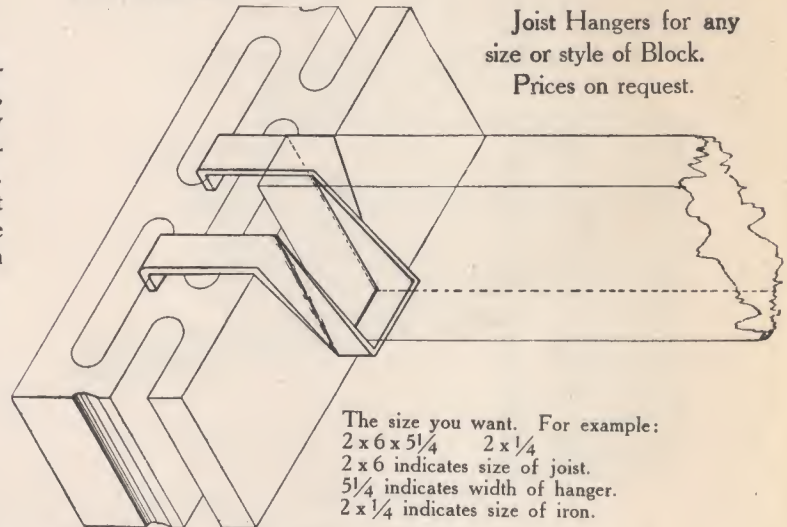
Made in three sizes,  $\frac{1}{4}$ -inch,  $\frac{3}{8}$ -inch and  $\frac{1}{2}$ -inch.  
Weight,  $\frac{1}{4}$  lb.

No. x12, Iron, nickel plated, each.....\$ .40  
No. x012, Solid Bronze, each..... .70

## The Very Best.

### JOIST HANGERS.

Some architects and builders prefer hangers rather than to cut into the blocks for joist, as hangers distribute the weight throughout the wall. We have made arrangements with one of the largest concerns manufacturing joist hangers to make for us a special hanger for MIRACLE Blocks, and we are able to furnish them for both 9-inch and 12-inch blocks, and can assure you of prompt delivery.



Joist Hangers for any  
size or style of Block.  
Prices on request.

The size you want. For example:  
2 x 6 x  $5\frac{1}{2}$  2 x  $\frac{1}{4}$   
2 x 6 indicates size of joist.  
 $5\frac{1}{2}$  indicates width of hanger.  
2 x  $\frac{1}{4}$  indicates size of iron.

Sizes for 9-in. blocks.	Price.
2 x 6 x $5\frac{1}{2}$ 2 x $\frac{1}{4}$ ..	\$.55
2 x 8 x $5\frac{1}{2}$ 2 x $\frac{1}{4}$ ..	.60
2 x 10 x $5\frac{1}{2}$ 2 x $\frac{1}{4}$ ..	.64
2 x 12 x $5\frac{1}{2}$ 2 x $\frac{1}{4}$ ..	.69
2 x 14 x $5\frac{1}{2}$ 2 x $\frac{1}{4}$ ..	.74

Sizes for 9-in. blocks.	Price.
2 x 6 x $5\frac{1}{2}$ 2 $\frac{1}{2}$ x $\frac{1}{4}$ ..	\$.60
2 x 8 x $5\frac{1}{2}$ 2 $\frac{1}{2}$ x $\frac{1}{4}$ ..	.64
2 x 10 x $5\frac{1}{2}$ 2 $\frac{1}{2}$ x $\frac{1}{4}$ ..	.69
2 x 12 x $5\frac{1}{2}$ 2 $\frac{1}{2}$ x $\frac{1}{4}$ ..	.74
2 x 14 x $5\frac{1}{2}$ 2 $\frac{1}{2}$ x $\frac{1}{4}$ ..	.80

Sizes for 12-in. blocks.	Price.
2 x 6 x $7\frac{1}{4}$ 2 x $\frac{1}{4}$ ..	\$.60
2 x 8 x $7\frac{1}{4}$ 2 x $\frac{1}{4}$ ..	.64
2 x 10 x $7\frac{1}{4}$ 2 x $\frac{1}{4}$ ..	.69
2 x 12 x $7\frac{1}{4}$ 2 x $\frac{1}{4}$ ..	.74
2 x 14 x $7\frac{1}{4}$ 2 x $\frac{1}{4}$ ..	.80

Sizes for 12-in. blocks.	Price.
2 x 6 x $7\frac{1}{4}$ 2 $\frac{1}{2}$ x $\frac{1}{4}$ ..	\$.64
2 x 8 x $7\frac{1}{4}$ 2 $\frac{1}{2}$ x $\frac{1}{4}$ ..	.69
2 x 10 x $7\frac{1}{4}$ 2 $\frac{1}{2}$ x $\frac{1}{4}$ ..	.74
2 x 12 x $7\frac{1}{4}$ 2 $\frac{1}{2}$ x $\frac{1}{4}$ ..	.80
2 x 14 x $7\frac{1}{4}$ 2 $\frac{1}{2}$ x $\frac{1}{4}$ ..	.84

### Subject to Trade Discount.

Prices F. O. B. Cars at Chicago, Ill.



### RAILROAD PICKS.

Chip-Away, Adz Eye,  
Painted Red, Axe Finish,  
Special Steel Bit and Point.  
Weight, 4 to 5 lbs.  
Price, 50c each.

### STEEL SQUARES.

No. 1 Square, 2-in. wide,  
can be furnished with 16  
or 18-in. Tongue; 1-16,  
1-12,  $\frac{1}{8}$ ,  $\frac{1}{4}$ -in. Board  
and Brace Measure.

Each.....\$1.00

No. 7 Square, 2-in. wide,  
with 16-in. Tongue,  $\frac{1}{8}$ ,  
 $\frac{1}{4}$ -in. Board and Brace  
Measure.

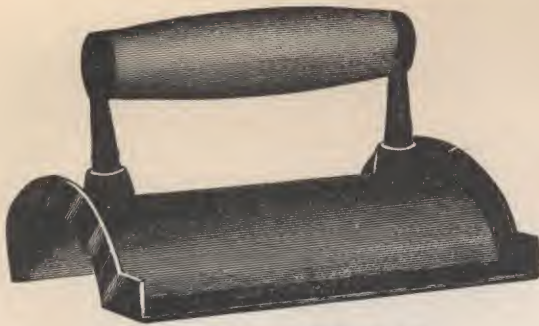
Each..... 70c



5 per cent. OFF on all  
Tools for CASH with order.

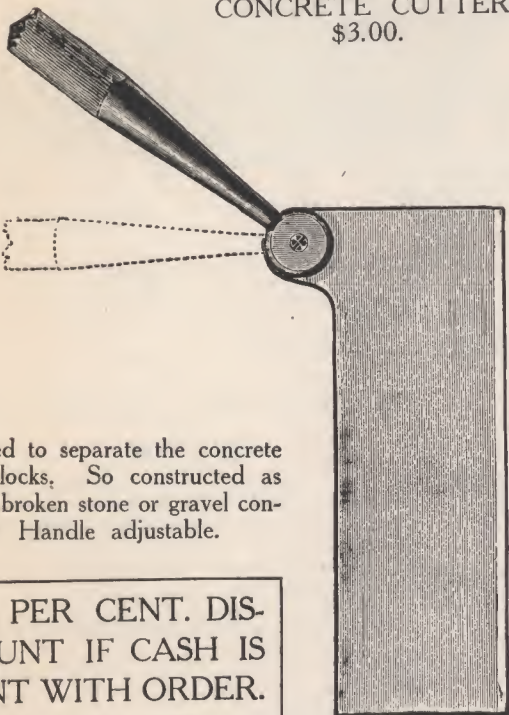


## Miracle Cement Sidewalk Tools—Continued.



RESIDENCE CURB TOOL.  
No. 25.—\$2.25.

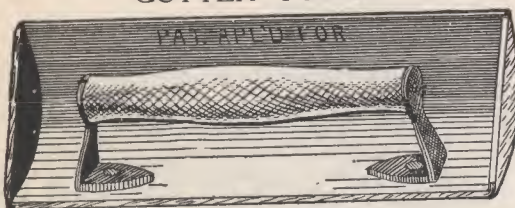
This tool is used for the purpose of finishing the top of curb on side of residence steps, and for making a roll on side of residence and lawn walks.



CONCRETE CUTTER.  
\$3.00.

Used to separate the concrete into blocks. So constructed as to cut broken stone or gravel concrete. Handle adjustable.

5 PER CENT. DISCOUNT IF CASH IS SENT WITH ORDER.



GUTTER TOOLS.

No. 30.—\$3.75.

Used for making the internal angle where curb and gutter come together;  $4\frac{1}{2} \times 1\frac{3}{4}$ , 2-inch radius.

No. 31.— $3\frac{1}{2} \times 1\frac{3}{4}$ , 1-inch radius.—\$3.00.



ALUMINUM FLOATS.

Plain ..... Price, \$1.75  
Corrugated ..... " 1.75

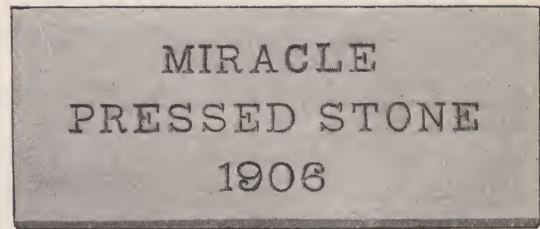
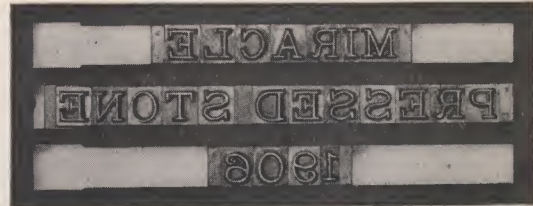
### NAME PLATES.



The above name plates are made of solid bronze of any size and including any lettering that may be desired.

We usually sell, however, a plate about  $3\frac{1}{2}$  inches by 10 inches in size, having a line border and containing letters  $\frac{3}{4}$ -inch high. Such a tool would cost about \$3.25 to \$3.75, according to the amount of lettering called for.

### ADJUSTABLE NAME PLATES.



This name stamp allows one to set up any name and address, any advertisement or any date.

Frames are made to hold as many lines of type as may be desired, are provided with lock blocks to hold type in place, and fitted with proper hand holders for operating.

Typo and figures are cast of bronze, and are carefully finished so as to press or tamp into the cement walk and easily withdraw, leaving a neat and straight impression.

Frames are made of steel, heavily coated to prevent rusting.

We are prepared to furnish these in single, double and triple frames, and in 12, 15, 18 and 20-inch lengths.

We offer these outfits as follows: 15-inch double frame, lock blocks, full alphabet, A to Z, and figures 0 to 9, one period, one dash, one space blank, complete \$6.95, express prepaid. Single Frames, 7 cents per inch, inside measure.

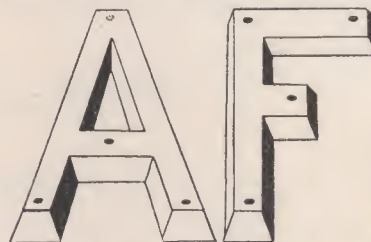
Double Frames, 12 cents per inch.

Triple Frames, 17 cents per inch.

Letters and Figures,  $\frac{3}{4}$  inch in size,  $12\frac{1}{2}$  cents.

Letters and Figures, 1 inch in size, 16 cents.

Letters and Figures are carried in stock and can be shipped within 24 hours after receipt of order. On other name plates, from one to three weeks is required, for they are made to order.



### INDENTATION LETTERS.

Cut herewith shows two of our indentation letters. They are cast in  $1\frac{1}{2}$ -inch, 3-inch or 6-inch letters. They can be

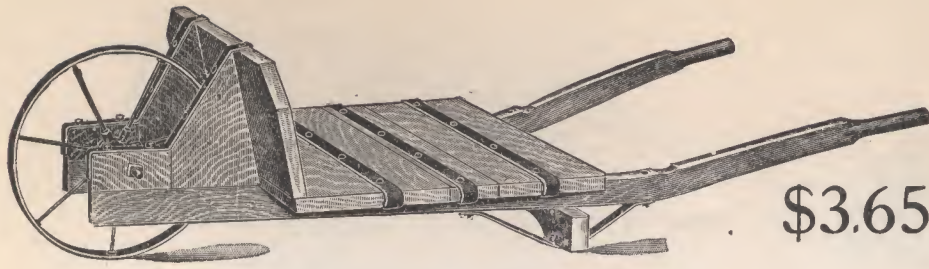
used by inserting in the cement along a straight edge or may be fastened to a wooden strip and thus make a very practical name stamp.

Size .....	1 inch.	$1\frac{1}{2}$ inch.	3 inch.	4 inch.	6 inch.
Full Alphabet.....	\$2.25	\$2.50	\$4.75	\$7.00	\$12.00
Single Letters .....	.10	.12	.20	.30	.50

Brass Letters for imbedding in Concrete. Prices on request.



## MIRACLE CONCRETE WHEELBARROWS.



Bent Handle Concrete Block Barrow.

\$3.65

This Barrow is especially designed for the handling of Concrete Blocks. It is made from Selected Rock Elm; has Extra Heavy Malleable Wheel, and is Thoroughly Ironed. We call your attention to the iron strips running crosswise on bed, which add Great Strength, and do not catch blocks as they are slid on and off.

Price, \$3.65 each; one-half dozen lots, \$3.40 each; F. O. B. Minneapolis.

Shipping weight, 70 pounds.

## STEEL TRAY MORTAR BARROW

With Angle Steel Legs and Braces.

FOR CONTRACTORS.

Made to Dump Over the Wheel.

Just the thing for contractors, cement and concrete workers. It carries a *man's* load. Tray made of No. 15 steel, measures on top, 28x36; on bottom, 20x21. Depth at wheel, 18½ inches; at handle end, 9 inches; has heavy rod rolled in edge. Handles are heavy, of selected hardwood. Legs and braces of angle steel. Heavy steel wheel, 16 inches in diameter, running on a ⅝ inch steel axle through lugs bolted on under side of handle. Weight per dozen 790 lbs. \$4.50 each.



Steel Tray Mortar Barrow.

\$4.50

## MIRACLE ANGLE LEG MORTAR BARROW

No. 40, Miracle Tubular for mortar and wet concrete. Has all the excellent qualities of our regular Tubulars for strength, durability and efficiency and is particularly adapted for the building Contractor.

Dimensions in brief are as follows:

LENGTH over all.....	64 inch
WIDTH " ".....	26 inch
HEIGHT " ".....	29 inch
TRAY LENGTH.....	35 inch
" WIDTH.....	25 inch
" DEPTH at Dash.....	17 inch
" Handles.....	7½ inch
GAUGE of Steel.....	No. 16
WHEEL Diameter.....	16 inch
TIRE.....	1¼x⅝ inch
STEEL AXLE.....	⅝ inch
CAPACITY in Cubic Feet.....	4
WEIGHT in lbs.....	82
PRICE.....	Each \$5.60



Miracle Angle Leg Mortar Barrow.

\$5.60

## NO. 21, MIRACLE TUBULAR

One of the best barrows made for handling Brick, Crushed Stone, Sand, Gravel, Mortar or Cement where quick action is desired. Hangs just right for handling easily.

Dimensions in brief are as follows:

LENGTH over all.....	65½ inch
WIDTH " ".....	23½ inch
HEIGHT " ".....	27 inch
TRAY LENGTH.....	38½ inch
" WIDTH.....	23 inch
" DEPTH.....	13 inch
HEIGHT at Nose.....	23½ inch
GAUGE of Steel.....	No. 16
WHEEL Diameter.....	16 inch
TIRE.....	1¼x⅝ inch
STEEL AXLE.....	⅝ inch
CAPACITY in Cubic feet.....	4
WEIGHT in lbs.....	80
PRICE.....	\$5.40



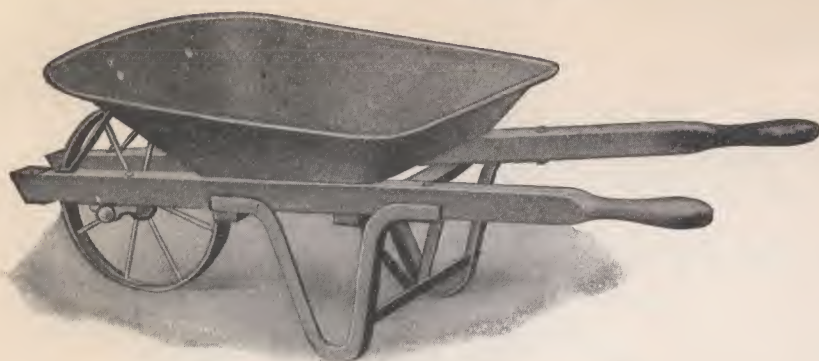
\$5.40

No. 21, Miracle Tubular.



# MIRACLE CONCRETE WHEELBARROWS-Continued

## MIRACLE No. 10.



With Angle Steel Legs And Braces.

Price, \$40.50 per dozen \$20.50 per half dozen, each \$3.50

speak for themselves; they cannot be improved upon. Wheel is 16 inches in diameter,  $1\frac{3}{4}$ x5-16 inch tire,  $\frac{1}{2}$  inch spokes and runs on a  $\frac{5}{8}$  inch steel axle held to handles by heavy lugs. Weight, per dozen, 750 pounds.

## MIRACLE No. 3.

With Wire Edged Steel Tray.

All No. 3 Barrows are furnished with heavy steel wheels, 16 inches in diameter. The trays are made of one piece of sheet steel, without seam or rivet, pressed into proper shape. Edges are flanged and turned over a 5-16-inch steel rod. All parts of the barrows are given a heavy coat of paint.

No.	One dozen Packed for Export Measure	Diameter of Wheel Inches	Gauge of Steel in Tray	Size at Top.	Wgt. each, lbs.
C 3	24 cu. ft.	16	16	32 inches long, 29 in. wide	55
C 4	24 cu. ft.	16	14		
C 5	26 cu. ft.	16	16	36 inches long, 29 in. wide	60

## MIRACLE No. 10

Good, Strong, Serviceable Barrow at an Interesting Price.

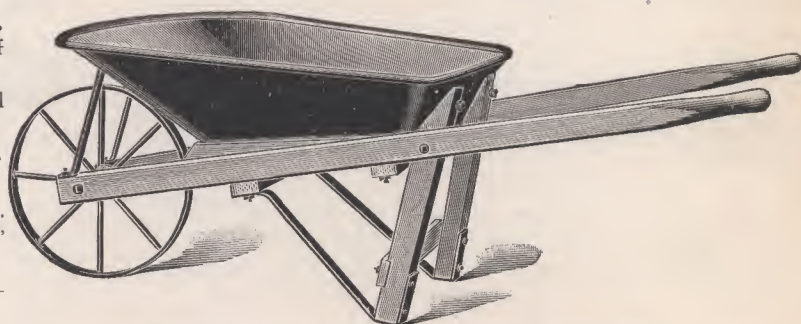
FOR CONTRACTORS.

Made to Dump Over the Wheel.

This is one of the very best steel tray, steel wheel, wood frame Barrows made. Tray measures on top 29x36, has heavy rod rolled in edge and is made of No. 16 steel. Frame is very heavy, of selected hard wood, and is thoroughly braced and bolted. The angle legs and braces

## MIRACLE No. 3.

An Extra Good Barrow for the Money. Cheap, but not Cheaply Made.



With Solid Pressed Steel Trays, Wire Edge,

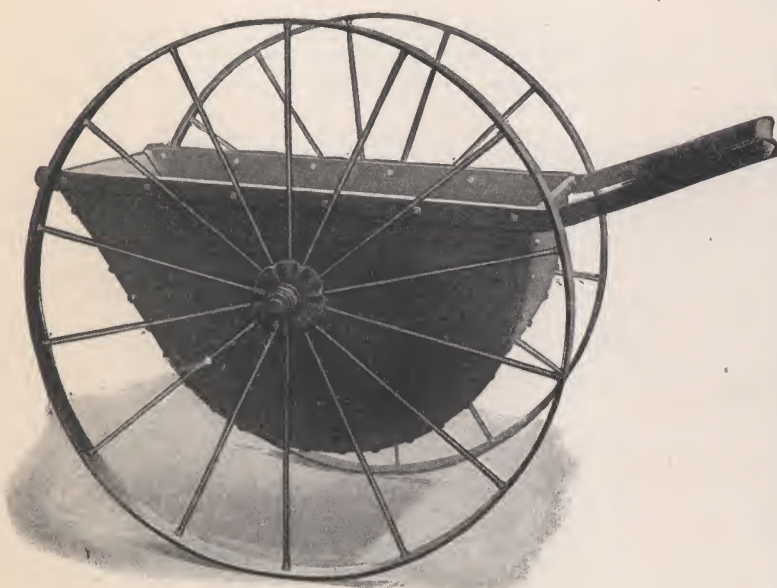
Price, \$32.00 per dozen, \$16.50 per half dozen, \$2.85 each

## No. 1. CONCRETE CART

For Contractors, Cement and Concrete Workers

The bowl is so hung that it can be turned bottom up, making it especially convenient for laying the concrete base for sidewalks, reservoir bottoms and floors for reinforced concrete buildings. A brief description of this rig is as follows:

LENGTH of Body.....39 $\frac{1}{2}$  inch  
 DEPTH " " .....20 inch  
 WIDTH " " .....21 inch  
 GAUGE of Steel.....No. 12  
 LENGTH over all.....58 inch  
 WIDTH over all.....32 inch  
 HANDLE.....1 inch gas pipe  
 WHEELS.....42 inch diam. 2 in. tread  
 AXLE.....1 $\frac{1}{4}$  inch cold rolled  
 WEIGHT.....225 pounds  
 CAPACITY.....6 cubic feet  
 PRICE.....\$18.00

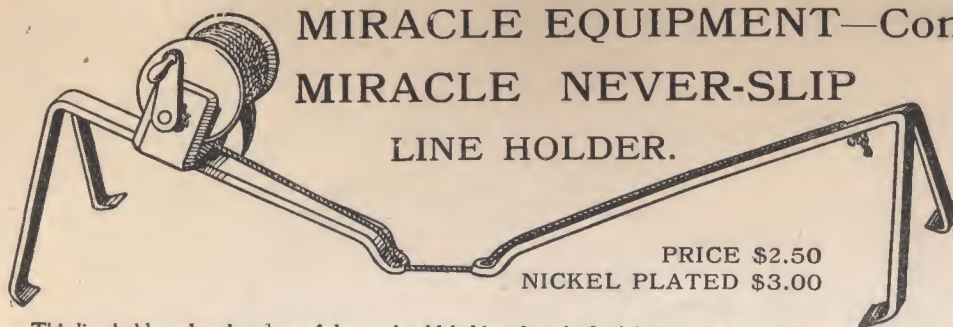


Concrete Cart



## MIRACLE EQUIPMENT—Continued.

### MIRACLE NEVER-SLIP LINE HOLDER.



PRICE \$2.50  
NICKEL PLATED \$3.00

This line holder takes the place of the crude old fashioned method of fastening a mason's line to nails in the mortar joints. It is time-saving, practical and a favorite with mechanics and contractors.



### GALVANIZED IRON PAILS. Extra Heavy.

12-quart, each .....\$ .40  
14-quart, each ..... .45

### MIRACLE EXPANDED METAL.



#### EXPANDED METAL IN USE.

As a material, expanded metal is nothing more nor less than a plain sheet of steel, which, by an automatic machine, is opened into meshes of any desired size or section of strand. It has served many purposes since its first appearance, but to-day stands out as a most important item in reinforced concrete construction. It is most valuable to the average cement user as reinforcement for cement sidewalk construction, cement flooring and roofing, concrete beams, cement sewer tile, etc.

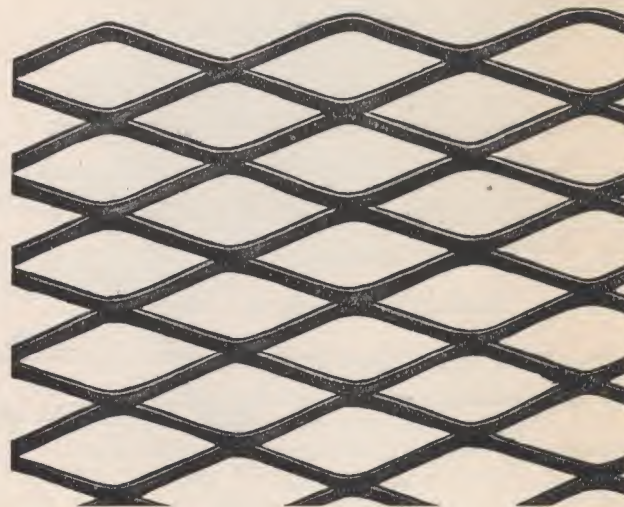
It is also used most satisfactorily and economically as a substitute for lath.

The accompanying illustration shows a popular lathing mesh (C 18 Standard 27 gauge) made in lengths of 8 feet and 18 inches wide, which size constitutes the specifications of all leading architects.

Price per square yard (C 18 Standard 27 gauge) . . . . \$0.28

For other uses for expanded metal, it is produced in sheets of 8-foot lengths and in any width that is wanted up to a certain point.

Prices and specifications as follows, F. O. B. Factory:



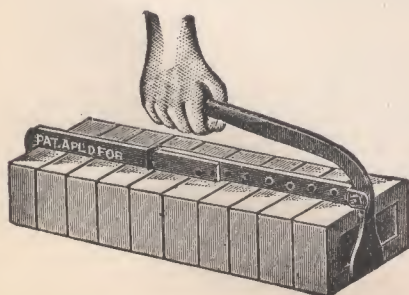
Mesh.	Gauge	Lbs. to Sq. Ft.	Length	Any Width up to	Price per sq. ft.
1/2 in.	18	.62	8 ft.	7 ft.	\$ .04 1/2
3/4 in.	13	.81	8 ft.	5 ft.	.05 1/2
1 3/4 in.	12	.64	8 ft.	7 ft.	.04 3/4
2 3/4 in.	10	1/2	8 ft.	12 ft.	.03 3/4
2 3/4 in.	10 Db. Str.		8 ft.	6 ft.	.05 1/2
3 in.	10	1/2	8 ft.	12 ft.	.05
3 in.	10 Db. Str.	1	8 ft.	6 ft.	.05 1/2

Prices subject to change without notice. 5 per cent. off for cash with order for 25 yards or more. Ask for special prices on large quantities.

### MIRACLE BRICK TONGS.

#### TESTED BY MIRACLE EXPERIENCE.

Pronounced the Most Practical for Handling Brick.



#### It Has Been Demonstrated That MONEY IS EASILY SAVED

Because it saves 25 per cent. of time consumed in unloading a car of brick.

Because with it there can be no mistakes in count. It can be adjusted to carry any number of brick from six to twelve.

Because with it you avoid chipping the brick.

Because pavers can handle the brick directly off the curb, thus saving time in wheeling.

Because it costs but little, and will pay for itself in three days.

Weight, 5 1/2 lbs. Price . . . . . \$2.35



## Use This Blank When Ordering Special or Odd Molds

MIRACLE PRESSED STONE CO.,  
MINNEAPOLIS, MINN.:

Please find enclosed (check), (draft), (money order) for \$\_\_\_\_\_

Dollars.

(PART/FULL) payment on the following equipment.

Ship to \_\_\_\_\_

Name \_\_\_\_\_

Town

Via

State

Signed.

5 per cent. discount for cash with the order in full payment.

20 per cent. must accompany order to insure prompt shipment, unless rated in Dun or Bradstreet.

**WE HANDLE A COMPLETE LINE.**



# Miracle Guarantee Bond.

**To Whom it May Concern:** We, the Miracle Pressed Stone Company, incorporated under the laws of South Dakota, doing business lawfully in the City of Minneapolis, and each member thereof, hereby agree, as a company and as individuals, that if in any case Miracle Machines, Molds or other manufactures are found not to be as represented by us, or will not do the work claimed for them, they can be returned at any time within ninety (90) days of the date of purchase, and if in good condition, less reasonable wear, we will immediately refund the price paid for same. Prosperity for us depends on the success of Miracle customers and the prosperity of the concrete industry, hence our established policy of doing everything in our power to help them succeed.

We further guarantee equally careful and prompt attention to all customers, whether their orders be large or small.

SIGNED:

**Miracle Pressed Stone Co.,**

*By the President,*

*O. W. Miracle*

ATTEST:

*By the Sec'y and Treas.,*

*Tomuraeh*

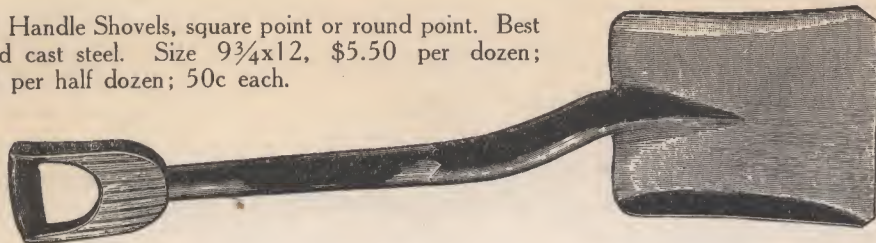
*Minneapolis, July 1st.*



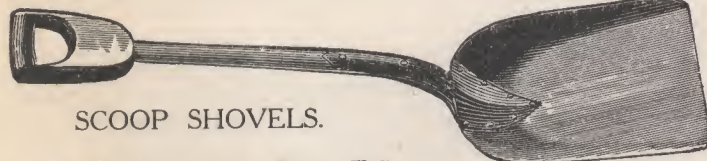


# ROCK BOTTOM PRICES ON BEST TOOLS MADE

D Handle Shovels, square point or round point. Best selected cast steel. Size  $9\frac{3}{4} \times 12$ , \$5.50 per dozen; \$3.00 per half dozen; 50c each.



Long Handle, Round Point. No. 2 Black Cast Steel. Size of Blade,  $9\frac{3}{4} \times 11\frac{3}{4}$ . Price, 60 cents.



SCOOP SHOVELS.

D Handle, Hollow Back, Full Polished, No. 4 Solid Cast Steel. Width of Blade,  $12\frac{1}{2}$  inches. Height of Blade,  $15\frac{1}{2}$  inches. Price, 80 cents.

MORTAR HOES.

10-inch Polished Blade, Gold Bronzed Socket. Height of Handle, 6 feet. Price, 55 cents.

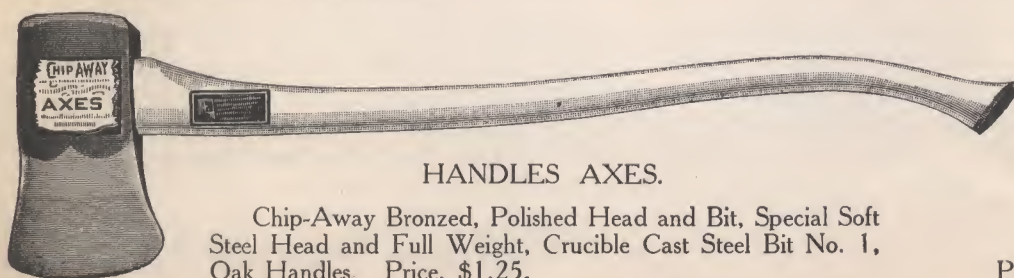
MORTAR HOES.

10-inch Polished Blade, with two perforations of  $1\frac{3}{4}$ -inch diameter, Gold Bronzed Socket. Length of Handle, 6 feet. Price, 65 cents.



HAND SAWS.

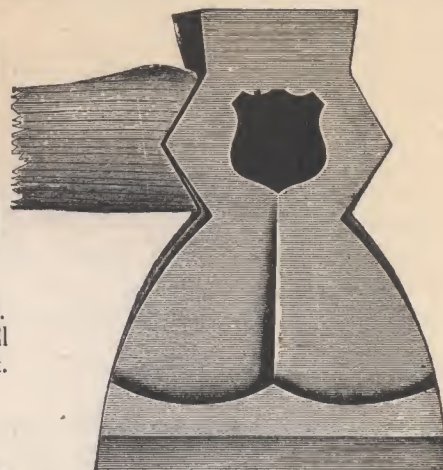
No. 90 Oak Leaf Spring Steel, Full Width, Etched Blade, Cherry Handle, 26-inch. Price, \$1.50.



HANDLES AXES.

Chip-Away Bronzed, Polished Head and Bit, Special Soft Steel Head and Full Weight, Crucible Cast Steel Bit No. 1, Oak Handles. Price, \$1.25.

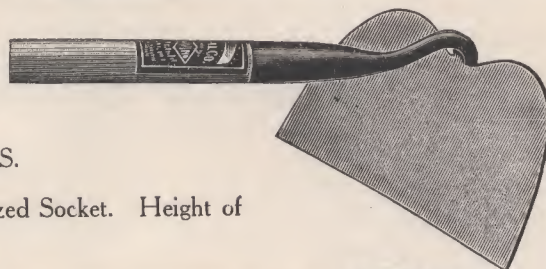
Chip-Away, No. 3 Bronzed. Soft Steel Body, with Full Weight Crucible Cast Steel Bit. Price, 75 cents.



## PLUMBS AND HAND LEVELS.

No. 103. 18 to 24-inch Level, only, each, 60c.

No. 3H. Plumb and Level, 24 to 30-inch, Patent Adjustable Ash Top Plates, Brass-Tipped Ends. Price, \$1.00.



## Rubber Hose.

Dolphin Special High Grade. Tested for pressure of 600 lbs. to a square inch.  $\frac{3}{4}$ -inch, 5-ply. Price, 15c per foot.

## Hose Nozzles.

Magic; Throws Spray or a Solid Stream. Price, 40 cents.

5 PER CENT. OFF  
on all tools for  
CASH with order.



## NAIL HAMMERS.

Oak Leaf, Plain Face, Adz Eye, Polished and Etched. Price, 60 cents.





MIRACLE  
MORE MONEY  
MOLDS





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